PROPOSED AUTHORIZATIONS FOR THE WATER RESOURCES DEVELOPMENT PROGRAM OF THE U.S. ARMY CORPS OF ENGINEERS

(101-59)

HEARINGS

BEFORE THE

SUBCOMMITTEE ON WATER RESOURCES

OF THE

COMMITTEE ON
PUBLIC WORKS AND TRANSPORTATION
HOUSE OF REPRESENTATIVES

ONE HUNDRED FIRST CONGRESS

SECOND SESSION

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PROPOSED AUTHORIZATIONS FOR THE WATER RESOURCES DEVELOPMENT PROGRAM OF THE U.S. ARMY CORPS OF ENGINEERS

THURSDAY, MARCH 1, 1990

House of Representatives,
Subcommittee on Water Resources,
Committee on Public Works and Transportation,
Washington, DC.

The subcommittee met, pursuant to notice, at 10:41 a.m. in room 2167, Rayburn House Office Building, Hon. Henry J. Nowak (chairman of the subcommittee) presiding.

Mr. Nowak. Good morning, the subcommittee will come to order. This morning the Subcommittee on Water Resources meets to receive testimony from the Department of the Army and the U.S. Army Corps of Engineers concerning proposed project authorizations for the Civil Works Program of the Corps of Engineers.

Projects that will be discussed are those that have received a favorable report from the Corps of Engineers. This hearing is the beginning of the biannual authorizational cycle for the Water Development Program of the U.S. Corps of Engineers.

With us today are Robert W. Page, Assistant Secretary of the Army for Civil Works; Major General Patrick Kelly, Director of Civil Works of the U.S. Army Corps of Engineers; and Dr. G. Edward Dickey, Acting Principal Deputy Assistant Secretary of the Army for Civil Works. Following today's hearing, the subcommittee intends to receive testimony from Members of Congress and outside witnesses on March 7, and if necessary, will schedule additional dates for public testimony.

The testimony today will describe those water resources projects which have received a favorable report from the Corps of Engineers. The corps' study process consists of an initial reconnaissance study to determine the likelihood of a viable project. If the need for a full study is indicated, a feasibility report is completed by the District Engineer. His recommendations are reviewed by the Division Engineer, the Board of Engineers for Rivers and Harbors, and the Chief of Engineers. The Chief of Engineers final report is prepared after opportunity for comment by affected states and interested Federal agencies. Project authorizations are usually in accordance with the final report of the Chief of engineers. The testimony will describe each of those projects which have received such a report.

Our Committee remains committed to a biennial authorization cycle for the water resources programs of the Corps of Engineers.

This commitment was demonstrated by the enactment of the Water Resources Development Act of 1988, which followed the Water Resources Development Act of 1986. It is our intention to develop a Water Resources program for 1990 and to have it enacted into law later this year.

Before we begin the testimony, I yield to my distinguished colleague from Minnesota, the ranking Republican member of the subcommittee, Arlan Stangeland, for whatever opening remarks he wishes to make at this time.

Mr. **Stangeland**. Thank you, Mr. Chairman. I would like to at this time yield to Congressman Hammerschmidt, the ranking Republican on the full Public Works Committee for a statement.

Mr. **Hammerschmidt**. Thank you very much for yielding. Mr. Chairman, let me begin by thanking you and the ranking member of this subcommittee for scheduling these hearings on water resources needs. As you know I have been an outspoken advocate, not only of the Corps Civil Works Program, but also for a thorough periodic examination by the Congress of the Corps' responsibilities, so today's hearings and the one scheduled for next week will allow us to gather information on changes needed in the Corps' authority, and will permit a review of projects that have been recommended for authorization or awaiting final approval by the administration. In short, these meetings will provide this subcommittee with information needed to develop a water resource development authorization bill for this Congress.

The Corps' Civil Works mission is an example of the Federal program that works. Over the past 150 years, the corps projects have helped to save lives and improve navigation efficiency and provide economical water and power to all parts of the country. In the process, corps projects have also created outstanding recreation opportunities and provided for the protection and enhancement of valuable fish and wildlife resources.

The benefits to the country relative to the costs have been enormous. The total cost of the entire Civil Works Program is only a little over three billion dollars a year, yet, far exceeding these costs is savings generated by the corps many times over.

For example, flood damages prevented alone on the average of more than 12 billion dollars a year. In 1986, over 27 billion dollars in damages were prevented by corps flood control projects, and this does not even begin to account for savings attributable to navigation, hydropower, water supply, and all the other benefits these projects generate.

Some say the Corps Civil Works Program is in decline, that the era of dam building and channelization and levee construction is over. While I agree that the corps has done an outstanding job of addressing the countries needs in these areas, I believe there is much work yet to be done. The corps' effort last year in responding to three different emergencies, Hurricane Hugo, the Loma Prieta earthquake, and the *Exxon Valdez* oil spill demonstrate the important contributions that a professional engineering agency like the corps can make.

I am particularly encouraged by the President's recognition of the corps expertise which is reflected in the administration's budget request for an enhanced corps roll in responding to the countries environmental and infrastructure needs.

On that point, let me conclude by extending a very warm welcome to Honorable Robert Page, Assistant Secretary of the Army for Civil Works who is responsible for a great deal of the imaginative thinking in shaping the corps' future.

His approach has been one of engineering professionalism laced with old fashioned common sense. I am looking forward to hearing his testimony. I also am eager to work with him in developing needed authorization legislation.

I also would like to extend a warm welcome to Major General Kelly who will provide the committee with the information on projects where complete feasibility reports have been approved by the chief of the engineers. Thank you very much, Mr. Chairman, and thank you for yielding, Mr. Stangeland.

Mr. **STANGELAND**. Thank you.

Mr. Chairman, I have a statement I would like to have made part of the record. I do not want to go through it all, but I do want to welcome Secretary Page, General Kelly and Dr. Dickey here, and commend you for beginning these series of hearings in order that we might keep the water project omnibus bill authorization process on the two year track. It is essential that we hold these hearings and future hearings, so that when we go to craft a bill, that we put in that bill the priorities that we see needed to continue the program of the corps and water projects in this country. Thank you, very much.

[Mr. Stangeland's prepared statement follows:]

STATEMENT OF HONORABLE ARLAN STANGELAND
WATER RESOURCES SUBCOMMITTEE
WATER RESOURCES DEVELOPMENT (CORPS) HEARING
MARCH 1, 1990

THANK YOU, MR. CHAIRMAN. THE SUBCOMMITTEE MEETS TODAY TO BEGIN HEARINGS ON CORPS OF ENGINEERS' PROJECTS AND PROGRAMS. THIS IS IN PREPARATION FOR AN OMNIBUS 1990 WATER RESOURCES DEVELOPMENT BILL.

FIRST, LET ME WELCOME OUR DISTINGUISHED WITNESSES, SECRETARY ROBERT W. PAGE (THE ASSISTANT SECRETARY OF THE ARMY FOR CIVIL WORKS), MAJOR GENERAL PATRICK KELLY (DIRECTOR OF CIVIL WORKS), AND DR. EDWARD DICKEY (FROM THE ASSISTANT SECRETARY'S OFFICE). I LOOK FORWARD TO WORKING WITH SECRETARY PAGE, GENERAL KELLY, DR. DICKEY, AND OTHERS IN DEVELOPING A RESPONSIBLE BILL. I THINK ALL OF US ON THIS COMMITTEE RECOGNIZE THE NEED TO KEEP ON A TWO-YEAR TRACK FOR PROJECT AUTHORIZATIONS. IT'S THE BEST WAY TO ADDRESS THIS NATION'S MANY WATER RESOURCES NEEDS.

AND WE HAVE MANY WATER NEEDS AND ISSUES TO EXPLORE OVER THE COMING WEEKS AND MONTHS. THE PRESIDENT'S BUDGET REQUEST AND ACCOMPANYING LEGISLATIVE PROPOSALS RAISE SEVERAL. LIKE MANY OTHER MEMBERS, I HAVE CONCERNS ABOUT EXPANDED RECREATION USER FEES AND INCREASED FEES FOR SECTION 404 AND SECTION 10 PERMITS. COST SHARING PROPOSALS FOR THE POPULAR SECTION 22 PLANNING ASSISTANCE TO STATES PROGRAM AND THE SECTION 205 FLOOD PLAIN MANAGEMENT SERVICES PROGRAM ALSO MERIT SERIOUS SCRUTINY. IN ADDITION, WE NEED TO LOOK CLOSELY AT THE PROPOSAL TO INCREASE THE TAX FOR THE HARBOR MAINTENANCE TRUST FUND (FROM .04% TO .125%). THE CORPS IS ALSO MAKING SOME MAJOR INITIATIVES IN DEVELOPING NEW TECHNOLOGIES AND IN MEETING ITS ENVIRONMENTAL RESPONSIBILITIES.

MR. CHAIRMAN, I LOOK FORWARD TO REVIEWING TESTIMONY FROM OUR HEARINGS TODAY AND BEYOND AND TO MOVING A WATER RESOURCES DEVELOPMENT ACT OF 1990.

DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
WASHINGTON, D.C. 20310-0103

14 JUN 1990

Honorable Arlan Stangeland
Ranking Member
Subcommittee on Water Resources
Committee on Public Works
  and Transportation
House of Representatives
Washington, D. C. 20515-6262

Dear Congressman Stangeland:

This is in response to your recent request to answer questions by Congressman Upton for the record of the Subcommittee on Water Resources' hearing on March 1, 1990.

I have enclosed for your information the answers to Congressman Upton's questions. We are providing Mr. Italiano with a copy of the enclosure for inclusion in the published hearing record.

I appreciated my recent opportunity to testify before the Subcommittee and thank you for introducing the Army's proposed bill on May 18, 1990.

Sincerely,

G. Edward Dickey
Acting Principal Deputy Assistant Secretary
(Civil Works)

Enclosure

6

ANSWERS TO QUESTIONS BY CONGRESSMAN UPTON

SOO LOCKS

Question: What is the value of trade that flows through the locks? What would be the economic impact of losing the Poe Lock?

Answer: Soo Locks tonnage averaged 87,828,743 net tons for the 1988 and 1989 shipping seasons. The value of that tonnage is estimated at $6,870,996,000 dollars.

At present there are 65 vessels in the U. S. Flag Great Lakes fleet. Of that 65, 29 must use the Poe Lock. These 29 Poe Lock vessels represent 70 percent of the U. S. fleet carrying capacity on the lakes. Should the Poe Lock be inoperable for a lengthy period of time, most of the fleet would have to be laid up resulting in economic loss to the shipping industry and the industries they serve. Almost all of the coal shipped through the locks is shipped in Poe Lock class vessels. Seventy-three percent of the nation's steel-making capacity is located in the Great Lakes Region and almost all iron ore shipped through the Soo Locks is carried on Poe Lock class vessels. The movement of iron ore and coal would decrease substantially, impacting steel mills and power utility inventories, operations and employment in the region.

If the Poe Lock becomes unavailable, the economic impact will be great because alternative modes of transportation, combined with alternative sources of supply, could not satisfy the demand for coal and iron ore which is normally satisfied by Lake Superior sources. Some coal and iron ore movements from the Lake Superior basin would switch to rail, but rail could carry only a small portion of that volume. A small portion of the shortfall in iron ore supplies could be made up by shipments from the Escanaba Harbor, which is on Lake Michigan. Both the harbor and the iron ore range which supplies it are operating near capacity now and could not handle much more than they now handle. There is no evidence that barging on the inland waterways is a feasible alternative mode of transportation.

Question: In 1987, one of the Canadian locks at the Soo was put out of service by the collapse of an interior wall. Are there any indications that Canada may rehabilitate or replace this lock?

Answer: We are aware that the Canadian government has conducted studies on the socioeconomic impact of the Canadian lock facilities and on repair alternatives for the Canadian lock. The most current indications from the Canadians are that they do not plan to rehabilitate or replace this lock. The U. S. Government asked Canada not to take any action which would permanently preclude consideration of reopening the lock at some point in the future, such as when both our Sabin and Davis locks become unusable.

Question: What is the volume of traffic through the Soo Locks that is bound for or coming from Canadian Ports.

Answer: Canadian traffic through the Soo Locks historically averages approximately 30 percent of the total Soo Locks traffic, or 26 million tons.

Question: Since Canada is a major user of the locks at the Soo, would it be appropriate to seek some form of cost-sharing for a large lock with the government of Canada?

Answer: All commercial navigation users of the U. S. lock facilities, domestic or foreign, would benefit from another large lock. As noted above, approximately 30 percent of the commercial navigation traffic through our lock facilities is Canadian. The lock facilities also service Canadian recreational craft as well as other foreign overseas users. We have authority to replace both the Davis and Sabin locks with one larger lock of modern dimensions. However, at this time we do not have a non-Federal sponsor willing to finance the required $90 million non-Federal share of the $256 million project, and the authorization will expire in November 1991 unless funds are obligated for design/construction of the project. Cost-sharing with Canada may be appropriate; however, special legislation would be required to enter into such an arrangement with Canada and additional discussion with Canadian officials would be required.

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Committee on Public Works and Transportation
One Hundred First Congress
U.S. House of Representatives
Room 2165, Rayburn House Office Building
Washington, DC 20515
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5A005171E

May 11, 1990

Dr. G. Edward Dickey
Acting Principal Deputy Assistant Secretary
of the Army (Civil Works)
Department of the Army
Office of the Assistant Secretary
Washington, D. C. 20310-0103

Dear Dr. Dickey:

Thank you for your testimony before the Subcommittee on Water Resources regarding the Water Resources Development Act. Your statements were very informative and will be beneficial in developing the Act.

Congressman Upton was unable to attend the hearing, and had a few questions regarding the Soo Locks that he would like answered. Attached is a list of these questions. Please respond at your earliest convenience and send a copy to Joseph A. Italiano, Committee Editor, for inclusion in our published hearing record.

Thank you for your time and consideration in this matter.

With best wishes, I am

Sincerely,

Arlan Stangeland

ARLAN STANGELAND
Member of Congress

AS:jmc
Attachment

QUESTIONS FOR THE CORPS OF ENGINEERS
HEARING ON
REAUTHORIZATION OF
THE WATER RESOURCES DEVELOPMENT ACT
MARCH 1, 1990

o What is the value of trade that flows through the locks? What would be the economic impact of losing the Poe Lock?

o In 1987, one of the Canadian locks at the Soo was put out of service by the collapse of an interior wall. Are there any indications that Canada may rehabilitate or replace this lock?

o What is the volume of traffic through the Soo Locks that is bound for or coming from Canadian ports?

o Since Canada is a major user of the locks at the Soo, would it be appropriate to seek some form of cost-sharing for a large lock with the government of Canada?

Mr. **Nowak**. Thank you. Is there anyone else who would like to make opening statement at this time? Mr. Hancock?

Mr. **Hancock**. In southwest Missouri, probably one of the major economic impacts in my district over the past 30 years has been the development of the corps' projects down there, and in fact, it is predicted that in the near future, the main source of income will be from the tourism industry that started in that district as a result of the Table Rock Lake. I think that was back about 1953 or 1954. I appreciate the opportunity to listen to the testimony, and I am very personally supportive of the future development in the area of flood control and water resources. Water resources, although we can talk about clean air and every thing else, water is probably one of the most important things in our environment and in our ecology. Thank you, Gentlemen. Thank you, Mr. Chairman.

Mr. **Nowak**. Thank you very much. Without any further requests, let me turn to Mr. Robert W. Page for his testimony. I understand that we will have the opportunity to have any discussion after your formal testimony, and then you will have to be excused because you have other obligations. We will go through the details of the projects with General Kelly.

TESTIMONY OF HON. ROBERT W. PAGE, DEPARTMENT OF THE ARMY, ASSISTANT SECRETARY OF THE ARMY (CIVIL WORKS)

Mr. **Page**. Thank you very much, Mr. Chairman. We are pleased to be here today, and look forward, not only to this testimony, but to an ongoing dialogue with you. I think it will help us all a great deal, and certainly will enhance our own effort to execute our various projects and our plans for the future.

Mr. Hammerschmidt, I want to thank you for your comments. We also have been grappling with the same matter that you mentioned, whether the corps is on the decline or not. In our opinion, the corps has positioned itself to be reasonable and responsible engineering and construction managers within the Federal government. There certainly is a larger role there that we can play, in future infrastructure programs , MAGLEV, and so forth.

I will provide an overview of our proposals for a Water Resources Development Act of 1990. As you mentioned, Mr. Chairman, General Kelly then will discuss specific projects with the committee after this first portion of the testimony.

Before proceeding, I want to reiterate the appreciation we have for the members of this committee for the leadership that we have received, and your encouragement, both in WRDA 86 and WRDA 88.

We have established, which is very important to all of us, a partnership arrangement with our sponsors. This has been working very well.

We also are working closely, not only with the EPA, but also with the other resource agencies because we owe this to the American public and to this Nation. When we commence on a journey to develop a project or process a permit, we must come to grips with whatever may be the problems during that process, rather than having them debated at the end. Moreover, there is too long period—too much time and too much money are expended.

We think that our programs are working well. We have been delighted about the way we have been able to respond and work with our sponsors. There is a closer relationship now. They are working with us from the very outset, and it is an open relationship.

We have exhibited our sensitivity to the ever increasing interest in and need for environmental protection. The corps, I would say now, is proud of the fact that they are one of the outstanding leaders in environmental preservation that we have in the Nation today.

Mr. Hammerschmidt noted, and I am sure that you are aware, so I will not dwell on it—that we recently experienced a lot of disasters, including Hurricane Hugo, the forest fires in Wyoming, earthquakes in California, or those horrible oil spills that seem to be occurring more frequently than they should.

We have spent a great deal of time on recovery efforts. I have watched the corps employees, and I thank them, as you have, for their gallant efforts. They also are spending a great deal of time looking at what we can do to put into effect some trigger mechanism on oil spills to enable not only the Federal government, but also local governments to respond quicker. We are looking at what we have in the Federal government which could help, and how it can be mobilized quicker.

I would conclude by saying that we certainly look forward to working with you. We have a lot to offer. We are willing to answer as many questions that you have, and I am sure there are a number. In that spirit of cooperation, I would conclude, Mr. Chairman, this short statement of mine. I do have a longer statement for the record if I may, with your permission insert it in the record.

Mr. NOWAK. Without objection, it will be totally inserted in the record.

Mr. PAGE. Then, after your questions Major General Kelly will proceed.

Mr. Chairman, thank you very much.

Mr. NOWAK. Thank you, Mr. Page. I would like to just touch upon one initiative that I know you have been involved in looking at, and that is the extension of the Water Resource Development Act, section 1135 which authorized the corps' improving environmental quality at existing projects. I wonder if you could just briefly discuss the general thrust of those initiatives and how the corps is moving forward.

Mr. PAGE. Yes, thank you. I will ask General Kelly to respond to that.

General KELLY. Thank you, Mr. Chairman. We are using that authority, not the funding, but the authority right now to help the State of Florida restore certain areas of the Kissimmee project.

Two other things are happening on section 1135. First of all, we have asked all of our divisions and districts to submit proposals in the next month or so, of how we might use section 1135, to improve the environment of existing projects. There are a couple of stipulations. We have to maintain the project purpose, and as stipulated in the law, it must be cost shared 75 percent Federal and 25 percent non-Federal. We would also like to have those projects basically finished within two years so that they are small.

The other matter that we are looking at is that that law would expire in 1991. We would like to extend that particular provision another five years out to 1996.

Mr. NOWAK. Thank you very much. Why don't you let me ask other members if they have questions at this time, Mr. Hancock, Mr. Page.

No?

Mr. JONES. Mr. Chairman, I do have quite a bit—several questions actually.

Mr. NOWAK. Mr. Jones from Georgia is recognized for as much time as he may need.

APALACHICOLA/CHATTAHOOCHEE/FLINT RIVER—LAKE SIDNEY LANIER, AL

Mr. JONES. Thank you, Mr. Chairman. Mr. Page, we certainly appreciate taking your time to testify before the subcommittee today, and I would like to ask you a few questions concerning the water supply in our district, the Fourth District of Georgia, and the State of Georgia, but before I do, Mr. Chairman, I need to give a background on this.

I represent the Fourth District of Georgia which comprises a little bit of North Atlanta and then to the east. Now, our district depends on water supply from Lake Sidney Lanier which is part of the Apalachicola/Chattahoochee/Flint River basin. Georgia also shares the Apalachicola/Chattahoochee/Flint River Basin with Alabama and Florida.

Lake Lanier empties into the Chattahoochee River which forms the Alabama/Georgia border from about Columbus to the Florida line. Waters from the Chattahoochee also form both the Apalachicola River and bay in Florida.

Lake Lanier was created by the Buford Dam. Buford Dam is a Federal Corps of Engineers project authorized in 1947 by Congress, and built between 1950 and 1957 for purposes of navigation, hydropower, flood control and water supply/water quality for the metropolitan Atlanta area. The Chattahoochee River/Lake Lanier system is a source of 80 percent of the Atlanta regions water supply. The amount of water available from the Chattahoochee for water supply can no longer meet the growing needs of the Atlanta region, and the communities around Lake Lanier. This is because the release patterns from Buford Dam for peeking hydropower generation are not suited for water supply. Large surges of water are released from Buford Dam to produce hydro electricity a few hours a day on week days, and very little is regularly released at other times, and on weekends when water supply demands are very high. This problem has been the subject of many years of study. A Corps of Engineers urban study called The Metropolitan Atlanta Water Resources Management was authorized by Congress in 1972 to develop a long range water management plan.

In 1981, the study recommended building a reregulation dam just below Lake Lanier to catch water released for hydropower, and hold it for water supply. The reregulation dam was authorized in the Federal Water Resources Act of 1986.

However, subsequent studies by the corps resulted in a reversal of the 1981 recommendation. Of course, final recommendation is to change and reallocate some of the water stored in Lake Lanier from hydropower to water supply use. The reallocation will meet the water supply demands of the Atlanta region and other Lake Lanier users until 2010.

Local and state officials have agreed to compensate hydro power users $62 million for the loss of power from reallocation.

Now this reallocation will require action by Congress since it is a change in the project purpose of Buford Dam. Last October, the corps released it's draft, postauthorization change notification report. The report recommended reallocating 207 thousand acre feet of water from hydropower to water supply. Twenty percent of the water is now dedicated for hydropower.

The corps held eight public meetings in November on the report, and the draft report maintains that reallocation would have negligible impact on navigation, and would not effect down stream water supply or quality. Now, however, recreation users and down stream water users in Georgia, Florida and Alabama have all raised questions about the water reallocation plans.

Governor Hunt of Alabama is concerned that the water reallocation has a potential to seriously restrict water available to Alabama citizens. Last November Congressman Bevill of Alabama, the distinguished Chairman of the Subcommittee on Energy and Appropriations, requested the corps to develop plans for a comprehensive study of the long term water requirements of Alabama, Georgia and Florida by February.

I understand that in testimony before Chairman Bevill's committee this week, General Kelly, that you presented a conceptual plan for a comprehensive study to address long term water requirements of Alabama, Florida and Georgia. I have been working with officials in Georgia who have looked over the study, and to make a long story short, I have a few questions that I would like to ask you about that study and about reallocation.

Mr. PAGE. Yes.

Mr. JONES. First of all, would reallocation have any impact on downstream water users different from the impact that the reregulation dam, which has already been authorized by Congress?

Mr. PAGE. Patrick, you have worked with this before. Do you want to——

General KELLY. The answer, at least right now, is probably not.

Mr. JONES. Probably not. I understand that some persons are requesting an environmental impact study. If reallocation will have no impact on downstream users, and probably in fact, will have less of a direct impact, because we are not building a dam, why would you need another environmental impact study, and when will the corp make such a decision?

General KELLY. The study will be made this year. You mentioned the eight public hearings that took place, and we received input from the public in all three states, Georgia, Alabama and Florida. The corps has to decide whether there is a significant effect, not only on the environment, but on the economy. As you know, reallocation from Lake Lanier is about 207,000 acre feet, which is quite considerable. As you described, it exceeds our own authority, which is why we have to go back to Congress for approval of a post-authorization change. It is a significant change, and right now the Mobile District and the South Atlantic Division are evaluating all of this input to decide how significant that impact is.

Mr. JONES. Now as I understand it, since 1984 there has been a 308 study going on, and your documents show that the overall purpose of the 308 study is to develop long range solutions to the various water resource problems of the ACF Basin which have either resulted in, or have the potential of, causing conflicts over the multiple use of the basin's limited water resources. And, I guess what my question is, how is the proposed comprehensive study going to differ from the ongoing 308 study?

General KELLY. The ongoing 308 study started somewhere in the 1984/1985 time frame. It was to focus mostly, on navigation impacts on the Chattahoochee, Apalachicola.

The comprehensive study is much broader than that, because although it will include navigation, it will address long range water supply and water quality needs. It also will include environmental effects and fish and wildlife impacts. The purpose of the study is to help provide information to the three states, Georgia, Alabama and Florida, as they resolve the water problems on the Chattahoochee and Apalachicola.

Mr. JONES. Thank you, but I understand the proposed reallocation for water supply will proceed independently from the comprehensive water study, and will not be a part, and will not be delayed by this study. Is that correct?

General KELLY. Essentially what you say is correct, with one caveat. The comprehensive study, as I said earlier, is to assist the three states as they grapple with the long range water problems along those two river systems. The post-authorization change decision is closely tied to the achievement of the goals in the initial part of that study which is the development of an institutional framework for coordination between all parties. In the near term it is for our South Atlantic Division and Mobile District to assist the three states in laying out a framework. That framework will be an interstate mechanism of some sort, as agreed to by all three states, so that they can not only solve the short term/long term supply needs, but also the intermediate term needs which are addressed in the post/authorization change report.

Mr. JONES. For this study, will the corps need any additional legislative authority from Congress?

General KELLY. No sir, I do not think so.

Mr. JONES. All right. I do not want to take any more of your time, but I do have some additional written questions I will submit, Mr. Chairman. Thank you very much.

Mr. NOWAK. Without objection, it is so ordered.

[The questions and responses follow:]

ANSWERS TO QUESTIONS BY CONGRESSMAN JONES

QUESTION. It is my understanding that the proposed 2010 water withdrawals from Lake Allatoona and Carters Lake will be approved by the U.S. Army Corps of Engineers independent of the Comprehensive Water Study, and will not be delayed by the study. Is this correct?

ANSWER. Your understanding is essentially correct. Presently the Corps of Engineers is proceeding with reallocation reports addressing specific requests for immediate water supply needs that have been received from the Cities of Chatsworth and Cartersville and the Cobb County/Marietta Water Authority. The amounts proposed for reallocation represent reductions from the amounts to meet 2010 needs that were presented at the public meetings held in the Alabama-Coosa Basin regarding the proposed reallocations. No other reallocation requests are pending in the Basin.

The draft reallocation report for Chatsworth is scheduled to be completed in April 1990. Based on comments received during the public meetings concerning the reallocation for the City of Cartersville and the Cobb County-Marietta Water Authority some additional analyses are being made to address concerns about cumulative impacts on navigation, recreation, hydropower, and water supply. The draft reallocation report is scheduled to be completed in June 1990. Approval of the reallocations and contracts will be dependent upon favorable review of those documents.

QUESTION. Although it is not clear in the conceptual plan for the study, it is imperative that the study not delay or stop the issuance of Section 404 permits for community or regional water supply reservoirs in the ACF or Coosa River Basins. Will you confirm that the issuance of 404 permits will not be delayed or stopped?

ANSWER. Section 404 permit applications for community or regional water supply reservoirs will be considered on a case by case basis. The permit decision will depend on our assessment of the information submitted by the applicant, the impacts on water quality and the environment, and input from the public interest review process. We would not expect to delay the processing of a permit application pending completion of the comprehensive study proposed in the conceptual plan.

QUESTION. According to the Georgia Department of Natural Resources, the conceptual plan for the comprehensive study includes items which are inappropriate for the Corps of Engineers. These are 1) evaluation of State water rights laws, 2) formation of a three state compact, 3) evaluation of water supplies from non-Federal impoundments, 4) evaluation of water quality and State standards in water quality, 5) evaluation of potential interbasin transfers. Will you agree to delete these items?

ANSWER. No, I cannot agree to delete these items from the study. I do agree, however, that it would be inappropriate for the Corps of Engineers to make decisions in these areas. A critical element of the study is the development of an interstate coordinating mechanism so that the states can deal with and hopefully resolve any issues relating to these items. The role of the Corps of Engineers is to facilitate this process. We certainly would have no objection to the States undertaking the necessary studies.

QUESTION. The Mobile District of the U.S. Army Corps of Engineers has confused the proposed reallocation of Lake Lanier for year 2010 water supply by also proposing a plan entitled the Water Control Plan for all the reservoirs in the ACF Basin. The Water Control Plan should be removed from the draft Post Authorization Report for the Lanier reallocation and instead be evaluated in the Comprehensive Water Study. Do you agree with this?

ANSWER. The manner in wh~~ich the~~ Water Control Plan (WCP) is presented in the Draft Post Authorization Change (PAC) report has confused the reallocation issue. The purpose of the PAC is to obtain authorization of storage reallocation in lieu of the authorized reregulation dam. These alternatives have essentially the same impacts on lake levels and downstream flows.

The WCP basically formalizes the criteria that have evolved in operating the projects in the ACF system over the last few years and is really a free standing document. It has provided us an operational model to test the impacts of water use activities on flow regimes and lake levels throughout the basin and can be modified over time to better respond to changing needs and priorities. Although it impacts and is a part of both studies it need not be attached to either document.

QUESTION. It is my understanding that an interim three-year contract will be executed independent of the comprehensive study to allow water withdrawals directly from Lake Lanier and water supply releases from Lake Lanier for the Atlanta Metropolitan Area. Is this correct?

ANSWER. Yes, the final element of the short-term management plan for meeting the immediate water supply needs of the basins involves short-term (one to three years) water supply contracts at Lake Lanier to continue at approximately existing levels of withdrawals to meet immediate needs for water supply. Permanent reallocations to satisfy identified needs to the year 2010 would require Congressional authorization, and would only be processed after there has been an opportunity for the States of Alabama, Georgia, and Florida to resolve water rights issues associated with reallocation.

QUESTION. I understand the study is to be totally funded for four years by the Federal government. Will you commit that the study will be completed on schedule and that State or local governments will not be requested to provide resources to the study?

ANSWER. Yes, the studies will be done under our authority to operate the existing projects in conjunction with the authority to reallocate storage to water supply provided by the 1958 Water Supply Act and will be accomplished at 100% Federal expense. Although I cannot guarantee study completion within four years, I can assure you that the Corps of Engineers will make every effort to keep the study on schedule. Extensive coordination with the affected States will be necessary throughout the study and we would expect the states to contribute through their involvement in the development of the study design, management of the comprehensive study, and establishment of the interstate coordinating mechanism to resolve water resources issues. As I'm sure you are aware, this problem cannot be resolved without the joint efforts of the three States. Study progress and execution will depend on complete involvement and cooperation of the three States.

Mr. NOWAK. Perhaps, General, if you had the opportunity, now that this issue is raised again, to review it with your district people, and if there is any further authorization, perhaps you can bring that request to Mr. Jones and myself, and we could move forward in this authorization cycle. Otherwise it might have a glitch in the process as you go down two or three years from now, so I would be happy to receive that further comment.

Mr. Hammerschmidt.

Mr. HAMMERSCHMIDT. Mr. Chairman, I have a number of questions. One of them is rather generic in nature in that it involves, to a degree, National policy on recreation user fees, but the rest of them are really focused on Arkansas projects, there are four or five of those, and I know that General Kelly has a rather comprehensive bit of testimony, and that it involves 21 water resources projects, and it will take some time, so I would just submit my questions so I can get them into this hearing record, and would appreciate as rapid a response as we could get back on those for the benefit of our constituency.

General KELLY. Yes, sir.

Mr. HAMMERSCHMIDT. Without objection, I will just submit those for the record.

Mr. NOWAK. Without objection it is so ordered.

[The questions and responses follow:]

ANSWERS TO QUESTIONS BY CONGRESSMAN HAMMERSCHMIDT

Special Event Fees

Question. Mr. Page (Gen. Kelly), the Little Rock District recently proposed some administrative changes in the fees charged to groups who use recreation facilities at Corps lakes. I believe these fees were to go from $25 for all groups that want to reserve these facilities to a fee based on the number of people in the group. In some cases these fees would have gone up by 2,000% or more. Could you tell us what authority was cited for the increase?

- Are these fees being increased uniformly around the country?
- Are the Corps' costs for reserving facilities linked directly to the number of users?
- What are the Corps' costs of collection?
- How are the funds that are collected used?

Answer. The fee schedule change proposed in the Little Rock District concerned charges made for special event permits. The Little Rock District has suspended implementation of the proposal pending further review and development of a Division-wide fee schedule. Authority for these fees is contained in paragraph 4(c) of the Land and Water Conservation Fund Act of 1965, as amended (78 Stat. 897; 16 U.S.C. 4601-6a(c), which allows the charging of fees established by the agency involved for special recreation permits for group activities, recreation events, motorized recreation vehicles, and other specialized recreation uses.

Fee schedules are reviewed and adjusted annually at the division level to assure they are fair, equitable and comparable with fees charged for similar facilities and services by other recreation providers in the area. Decentralized Corps management allows the establishment and approval of fee schedules at the division level, to accommodate local conditions. However, fees are charged for reservation of group facilities.

Corps costs associated with special events include administrative costs of manpower dedicated to the event, maintenance of facilities impacted by participants, costs to protect the natural resources from intensive short-term use and to mitigate resource damage caused by such use. These costs increase as the number of participants in an event increases. The Corps costs to collect special event permit fees are nominal, consisting of staff time to receive the fee, prepare the receipt, remit the funds and maintain scheduling and accounting records. Funds collected are remitted to the Treasury and later appropriated in O&M General, along with other user fee monies, for operation and maintenance of recreation areas. They are returned to the districts, and usually to the projects, from which they were collected.

Montgomery Point Lock and Dam

Question. Could you give us a status report on the lower White River navigation problem -- or the Montgomery Point Lock and Dam issue?

Answer. This study is being performed under the authorization provided by the River and Harbor Act of July 24, 1946, (authorizing legislation for the McClellan-Kerr Arkansas River

Navigation System) and addresses solutions to the continuing low-water problems that occur in the White River entrance channel of the navigation system in times of low Mississippi River stages. The study area includes the first 10 miles of the system (the reach from the Mississippi River to Norrell Lock and Dam (No. 1). This area is located in Arkansas and Desha Counties in Arkansas.

Reconnaissance studies were completed in July 1985 with the publication of a letter report. Feasibility studies were initiated in October 1986. The draft report is scheduled to be available for public review in July 1990. The final report is scheduled to be completed in November 1990.

Question. Please describe the problem and what solutions you envision.

Answer. Mississippi River stages are lower today than they were 20 years ago, and are forecast to continue to decline over the next 50 years. This lower elevation of the Mississippi creates extensive dredging requirements for the entrance channel, as well as the imposition of navigation restrictions on users as the elevation at the mouth of the White River drops. The lack of available disposal areas nearby, because the area is composed of approximately 92 percent bottomland hardwoods (wetlands), compounds these problems.

Several alternatives within the banks of the White River have been investigated including: contraction works (dikes and revetments), sediment traps, and diversion of Arkansas River water. A lock and low head dam in the existing channel at about one half mile upstream from the mouth of the White River was model tested and found to work satisfactorily. Several variations of a lock and dam were investigated.

Question. Also, could you tell the Committee whether you have adequate authority to implement the needed solutions or is additional legislation called for? Would you support such legislation at this time?

Answer. A Corps recommendation on the need for construction authorization will be made following finalization of the feasibility report, and it would be premature to seek legislation prior to the completion of the Washington level processing of the report.

Beaver Lake

Question. Could you give us a status report on the Beaver Lake demonstration project authorized by Section 843 of PL 99-662? Have you been able to coordinate your project with the EPA's Clean Lakes project and the Soil Conservation Service's and the Agricultural Stabilization and Conservation Service's efforts at the Lake?

Answer. Discussions are ongoing with the Soil Conservation Service (SCS) on the Best Land Management Plan (BLMP). Money was provided for SCS to scale the plan for the most effective implementation within the authorized cost. This effort was completed in January 1990. A draft Memorandum of Understanding (MOU) between the Corps and SCS regarding the implementation of the BLMP in accordance with the cost-sharing requirements of Section 843 has been reviewed by SCS and comments were provided to the Corps Little Rock District in late February.

The Arkansas Water Resources Research Center, which has been contracted to prepare a water quality monitoring program plan, has been coordinating with the Environmental Protection Agency. The plan is being prepared as closely as possible to the Clean Lakes requirements.

The Little Rock District is currently negotiating with the Arkansas Soil and Water Conservation Commission, which will act as the local sponsor of the project, on a Local Cooperation Agreement (LCA) for the project. After the LCA and MOU are approved by the Assistant Secretary of the Army for Civil Works, the implementation of the BLMP can proceed.

Pine Bluff Harbor

Question. Could you give us a status report on the Pine Bluff Harbor Expansion project? It is my understanding that the project has a final Chief's report but that the report is unfavorable. Could you tell the Subcommittee what is the basis of the unfavorable recommendation?

Answer. The final Chief of Engineers report was signed on May 27, 1987. The project is economically and environmentally feasible. However, the report recommends no Federal action because the plan would provide for a slackwater harbor by construction of a navigation channel into a fast land area. The channel would be constructed outside the area of navigation servitude, and local interests could control access to the project. Navigation improvements that involve material excavated from fast lands to create resalable, flood-free waterfront industrial areas are most appropriate for implementation by non-Federal interests in response to local market conditions.

June 1, 1990

Hon. John Paul Hammerschmidt
U.S. House of Representatives
Washington, DC 20515

Dear Congressman Hammerschmidt:

I am Ray Mt. Joy with Enjet, Inc. company and we are very concerned about the potential for loss of the navigability of the Gulf Intracoastal Waterway (G.I.W.W.) in the stretch known as Sargent Beach located on the Texas coast just east of Matagorda Bay. I would like to request that this letter be entered into the record of the ongoing proceedings of the Water resources Subcommittee.

Erosion has created a situation where the protective barrier peninsula separating the Gulf of Mexico from the G.I.W.W. has been reduced to a very thin area of low lying land. Any given tropical storm is capable of inundating this area and filling the G.I.W.W. in with sand and debris. In addition, a breach of the G.I.W.W. would sacrifice our environmental objectives as the present coastal barriers serve to protect shoreline ecology. A permanent breach of the protective barrier would result in closure of the canal until the breach could be repaired.

This is clearly a situation where prevention will be much more economical than the attempted cure after a breach has already occurred. Because of the clay foundation in the Sargent Beach area, any damage sustained by storm or erosion may well be permanent.

The Gulf Intracoastal Waterway is critical to my company from a supply and distribution standpoint. It is critical to south Texas and the nation as an artery of commerce.

Please support the Corps of Engineers' agenda by making this a top priority for navigation projects and funding. The Corps must be encouraged to move forward as quickly as possible to avoid an unfortunate future disaster for the G.I.W.W.

Sincerely,

Ray Mt. Joy

Ray Mt. Joy
Vice President

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JUN 8 1990

5373 West Alabama, Suite 502 □ Houston, Texas 77056 □ Phone: 713/552-1559 □ Telex 79-0791 ENJET INC HOU □ Fax: 713/552-1255

Mr. Laughlin.

Mr. **LAUGHLIN**. Thank you, Mr. Chairman and Mr. Secretary.

Mr. **NOWAK**. Mr. Laughlin is, of course, from Texas, another vital state where the corps operates.

SARGENT BEACH EROSION PROJECT, TX

Mr. **LAUGHLIN**. I wanted to welcome the Secretary here, because he and I are graduates of the great university on the Brazos River, Texas A&M University. I have heard many fine complements, Mr. Secretary, about you. I hope they hold true when you help me with the problem that I am getting ready to talk to you about.

I represent the 14th Congressional District with six counties on the Gulf of Mexico, and sit in two of your district jurisdictions. Both commanders have been very supportive of the Sargent Beach Erosion Project, and the citizens in that area feel very good about the district Corps of Engineers' response to this problem. However, there is a serious concern, not only among my constituents, but I have to include myself, as to whether anyone in Washington, DC, recognizes the severity of the erosion and the threat to the Gulf Intercostal Waterway—a waterway that serves the commerce of our Nation from Brownsville to Pittsburgh, Pennsylvania, and throughout the Mississippi tributary.

We are concerned, Mr. Secretary, that with the severe erosion at the Sargent Beach—and I don't have to have any of the photographs or historical background, because my father took me to that beach at a time when there were about seven streets lined with beach houses on both sides of the street. All of those houses are gone to erosion. That is significant erosion. We are concerned in that area, and their representative here in Washington is also concerned, about the priority given to addressing the construction of the protective restraining walls that are needed there. I understand from the field review that the Sargent Beach sight has exhibited the need for protective efforts to be made there. I also understand that the Dallas District Office in the State of Texas has endorsed these findings. What I would like to ask is, when will the chief of the engineers at the Washington, DC, level approve that certification and take the steps necessary to go forward to protect this vital commerce artery.

Mr. **PAGE**. The answer the last question you had is that I do not know. However, I was down there myself not long ago, and I saw that area. I toured it with a group of the people from there. In fact, I can tell you that I am going back down at the end of this month. I will personally go look at that area, and get back to you to find out where we are in this process.

Mr. **LAUGHLIN**. Could I invite myself to go along with you? I am generally there——

Mr. **PAGE**. You certainly can.

Mr. **LAUGHLIN** [continuing]. Every weekend, and in fact, Mr. Secretary, I grew up there. My parents still live on the same street as they did when I was born 48 years ago, and it is about thirty miles from this location. I appreciate your response, because there has been a sincere feeling in that area, and not just among the residents there, but among the tug boat industry, among the chemical plants—petrochemical plants further south. It will not effect too much the people in the Houston area, but from south there, in the Victoria/Port Lavaca commerce area, it would cut them off from any transportation, and in that there are not enough rail cars or trucks in the State of Texas to move in a safe manner the petrochemicals that are moved up and down that canal. As I have told both of your commanders down there when they come to talk to me about Corps of Engineers' projects in my district, which is larger than the State of Massachusetts, I tell them I don't want to talk until we talk about Sargant Beach. That is how high it is on my priority, and among the people I represent.

Mr. PAGE. I will contact you on a date, so we can go down there and look at the problem.

Mr. LAUGHLIN. It is that vital, and I appreciate that response. I only want to address one more thing and then I can wait until General Kelly is available.

One reason that many in my area feel that this has not received any priority is an understanding—and I do not have the answer—that priorities on the waterway system are set by a committee here that meets here in Washington, and they may meet somewhere else, but it is a committee that sets priorities on the Gulf Intercoastal Waterway System, and there is not a single member of that committee west of the Mississippi River. I just wondered, one, if such a committee exists; two, if the membership of that committee includes no one west of the Mississippi River; and three, how do they go about setting priorities?

Mr. PAGE. There is a User Board. I believe that is what you are referring to.

Mr. LAUGHLIN. I do not know what the title is.

Mr. PAGE. I did not either until I came here.

Mr. LAUGHLIN. I have been trying to find out if it exists, and that is how much the people in my area know about it.

Mr. PAGE. On one of the first trips I made down to that area, I was invited to a lunch which I thought that was very kind. We discussed how one of your guys could serve on that board, so I know about this.

Mr. LAUGHLIN. All right.

Mr. PAGE. We have looked at it, and you are right. I know that we do not have anyone from that area on that Board.

Mr. LAUGHLIN. Well, I know there are many good people that could serve who had volunteered, and our President is from Texas, and perhaps if we can get some of those nominations so when a vacancy comes available, we can help that board. Mr. Secretary, I thank you for your time.

Mr. PAGE. I'm glad you brought that up.

Mr. LAUGHLIN. Well thank you, and I look forward to hearing from your staff. I will assure you, other than April 15, which is my daughter's birthday, and I was out of the country last year, any other weekend. I will tell our Agriculture friends you were not very cooperative if you pick the trip for April 15.

Mr. PAGE. No, we will make it for March.

Mr. LAUGHLIN. If you can make it any other weekend, I can commit to you that I will travel down there with you. Thank you, Mr. Secretary.

Mr. **Nowak**. Thank you. As we created that board, it is my understanding, Mr. Page, that we could also enlarge the board to accommodate perhaps the members who are most familiar with the area. Perhaps that may be another way to solve the problem.

Mr. **Page**. That could be a very good idea.

Mr. **Nowak**. I am sure that Mr. Laughlin will not be talking to me about enlarging the board unless another satisfactory way to cure the problem is in vain.

Mr. **Page**. I appreciate that.

Mr. **Nowak**. Let me now turn to Mr. Lightfoot from Iowa, who would like to make a short comment while you are still available, Mr. Secretary.

Mr. **Page**. Yes, sir.

Mr. **Lightfoot**. Thank you, Mr. Chairman, Mr. Page, and General Kelly. Thank you for coming this morning.

I have a series of questions, as John Paul Hammerschmidt's, they are very parochial in nature. My questions deal with projects located in my district. I, too, would like to submit them to you to answer, and we can make that part of the record.

Mr. **Nowak**. Without objection, it is so ordered.

[The questions and responses thereto follow:]

ANSWERS TO QUESTIONS BY CONGRESSMAN LIGHTFOOT

MAGNETIC LEVITATION PILOT PROGRAM

QUESTION. Mr. Page, I can appreciate the Army Corps of Engineers' interest in developing a magnetic levitation transportation system implementation plan. As a member of the Subcommittee on Aviation, I have had the benefit of the FAA's views on the potential advantages of such a plan. However, in light of my previous conversations with the Corps, I was under the impression funding for projects and studies was increasingly difficult to attain. How can the Corps justify undertaking a project of this magnitude when so many water projects await funding?

ANSWER. Our participation in the MAGLEV Pilot Program is in direct response to a tasking from Congress. The Corps is a preeminent public engineering organization in this country, and as such represents a major national resource which can be applied to solving many of the Nation's infrastructure problems. Throughout its history, the Corps civil and military missions have included a number of ground transportation projects, including survey and construction work for some of the Nation's first railroads. The MAGLEV Pilot Program is therefore a logical application of the Corps talents and resources to provide engineering service to the Nation.

PLANNING ASSISTANCE TO STATES PROGRAM

QUESTION. Could you provide me with additional information on your proposal to phase-in a 50 percent cost sharing plan for the Corp's Planning Assistance to States? Wouldn't several states have difficulty in picking up the additional costs? How would this affect local project contributions? The communities I have dealt with for Corps projects are unable to afford the current 25% cost-sharing requirement.

ANSWER. The President's Budget for FY 90 proposed cost sharing for the Planning Assistance to States Program, but the Congress took no action on that proposal. Many states voiced their concerns about cost sharing and the impracticality of implementing 50/50 cost so quickly. In response to these concerns, we proposed phasing in cost sharing over a three year period. The states' share would be 10% in FY 91, 30% in FY 92, and 50% in FY 93 and thereafter. We do recognize that there are a number of states that are experiencing the same severe budget constraints that the Federal government is and that it might be a few years before all states are again participating. Cost sharing in the Planning Assistance to States Program would not have a significant impact on local governments since this is primarily a Federal/State program.

RED ROCK RESEVOIR

QUESTION. Several weeks ago I met with representatives of your Rock Island Corps Division regarding Red Rock Reservoir. I realize you may not know the specifics of this particular study, therefore if you are unable to provide me with an answer, a written reply will do. I would appreciate the status of the current elevation levels and the buyout process. The Corps estimated at least four more real estate memorandums would be needed to complete the study. Yet, no budget request was included in the FY 1991 budget. Why and when can we expect funding to complete the final four memorandums?

ANSWER. There are approximately 29,000 acres of flowage easements in the reservoir area owned by approximately 750 landowners. In response to the Rock Island District's (CENCR) written inquiry, approximately 50% of the landowners replied that they are willing to consider selling fee to the Government.

It is anticipated that six Real Estate Design Memorandum (REDM) will be required to plan for the acquisition of the entire 29,000 acres. The status of this process is as follows:

a. REDM (5W): This first memorandum applies to approximately 4,000 acres which include the lands with the lowest elevation and the highest flood incidence. The REDM was submitted to, and approved by, ASA(CW) in February 1987 and February 1988, respectively. Acquisition efforts formally began in August 1989 following completion of the environmental assessment process and FONSI execution. Agreement has been reached with 2 landowners. Appraisals of fair market value and owner contacts are in process on the remaining tracts.

b. REDM (5X): This second memorandum covers approximately 8,000 acres and was submitted to ASA(CW) for approval in April 1989. In October 1989, it was returned to CENCR with a request for economic justification and quantification of benefits regarding fee acquisition. The District's January 1990 reply furnished some information on intangible benefits (for example, better control of the environment) but also advised that economic justification would be impossible to quantify. HQUSACE approval of this REDM (as supplemented by the additional

District information) is pending. Formal acquisition efforts would not begin until approval of REDM (5X) is granted by the ASA(CW) and funds for the acquisition are made available.

c. Remaining REDM's: The District has funds available to prepare the four remaining memoranda and work thereon is continuing. However, acquisition of the remaining land approximately 17,000 acres - cannot proceed until the respective REDM's are approved and the acquisition efforts are funded through the budget process.

Regarding the pool elevation level, the authorized elevation was 734 as of November 1988. Currently (as of 12 March 1990), the pool elevation was 737.12. A Record of Decision (ROD) is scheduled in September 1990 which will authorize an increased elevation of the pool to 742. Implementation of such authorized increase is also scheduled to occur in September 1990.

It must be noted that the pool elevation issue is unrelated to the buyout process discussed above. In originally constructing the Red Rock Reservoir, the government acquired fee title to land up to elevation 760, and as a result, increases in pool elevation will not require the purchase of additional real property rights.

MISSOURI RIVER BANK PROTECTION

QUESTION. Mitigation of the Missouri River Bank was authorized by the Water Resources and Development Act of 1986. In FY 1989, the project received a $150,000; in FY 1990 the project was appropriated $300,000. The President included funding for this project in this FY 91 budget. The President's budget requested funding for design and planning purposes and not for construction. Another study is not needed. The money should be used to begin land acquisition. What is the status of this project?

ANSWER. The initial funding of this project was for $300,000 that Congress added in FY 90 for preconstruction engineering and design. This was reduced to $296,000 as result of Gramm-Rudman-Hollings Act sequestration. The President's FY 91 budget for this project contains $429,000 to complete preconstruction engineering and design. A Project Implementation Plan is essentially complete and should be submitted to the HQ, U. S. Army Corps of Engineers in May 1990. This plan will outline the procedures to be followed in implementing the land acquisition and construction phase of the project and will take the place of the general design memorandum on a conventional Corps construction project.

Mr. **Nowak**. I want to thank you again for appearing. We will have other questions that I am sure we will be able to submit to you. We are going to keep the record open as we move through the whole process as we have in the past. I think that was a great help in ending up with a successful completion of a bill, and we will use that process again. Thank you very much.

Mr. **Page**. Thank you very much, Mr. Chairman.

Mr. Inhofe?

Mr. **Inhofe**. Mr. Chairman, may I ask one question before Mr. Page gets up?

Mr. **Page**. Yes, sir.

Mr. **Inhofe**. Operating from the distinct disadvantage of not having been a graduate of the institution on the Brazos River, I would like to ask you if you have any plans for a trip to Oklahoma?

Mr. **Page**. Well, I don't know how to answer that. We can visit about that after the hearing.

Mr. **Inhofe**. You can get there if you go up the Arkansas River.

Mr. **Page**. Half of my family came from Aida, and we really don't talk to them much.

Mr. **Nowak**. Excuse me, Mr. Geren from Texas.

Mr. **Geren**. I grew up on the Colorado River, but please don't hold that against me.

I have one question. It prompted out of a local concern, but it is really a more general question. It has to do with cost sharing.

LAKE BENBROOK—TARRANT COUNTY, FORT WORTH, TX

I represent Tarrant County, Fort Worth area, and the Tarrant County Water Improvement District is apparently trying to contract with the corps for storage rights at Lake Benbrook, which is a navigation and flood control lake. Without really getting into the complications of getting into the storage issue—and there are problems, because it is a navigation and flood control—and just getting straight to the cost sharing—right now the contract that is available to them would use the original cost basis for the cost of the storage. The corps agreed to allow them to pay the original cost for seven years, and then after seven years, at that point, the navigation use will expire. At that point they want to up the cost of the project to replacement cost, which makes the project not feasible from an economic standpoint, considering the amount of capital improvements the water improvement district is going to have to undertake, and it will defeat the program. They will just choose not to do it.

In looking at the cost sharing program, I wonder if there will be any provision for looking at the economic realities that exists around the facility to make sure that we are reasonable to the cost of the cost sharing, and do not wind up defeating projects that do make good economic sense. This is one. Benbrook was originally built in a rural area, and the town has grown up around it. Replacement cost is very high, and would increase the contract from 16 cents to over two dollars, and make it cost prohibitive. It is storage that will probably never be contracted for by the corps at that price, so I would like you to address the cost sharing program in general and——

Mr. PAGE. Well, Mr. Geren, when I came to this position two years ago, I thought the cost sharing was one of the best things to come along. It has infused a lot of interest in our program, and it has put us in a partnership with the non-Federal sector to develop worthwhile and needed projects. Being from the private sector myself, I am sort of bottom line oriented, and know that nothing is all that worthwhile if it does not meet a certain cost benefit criteria and provide a return on investment.

I still believe that, and it does not seem to me that what you are saying is really equitable. I would like to look at that, because I would think that if you are going to take a project and determine the return on investment over its life, that it should include future cost increases, and you are saying that we have a seven-year cost increase that, if included, makes the proposal infeasible.

Mr. GEREN. In seven years the contract will be refigured at replacement cost for this reservoir rather than original costs.

Mr. PAGE. That is a new twist, and I have not heard of that one. Would you allow me to look at that and get back to you about it? There may be something there, but it certainly doesn't seem to follow along with the personal philosophy that I have of cost sharing.

Mr. GEREN. And your thought is that the original cost ought to be the——

Mr. PAGE. I have always thought that that is basically the way it was approved at Benbrook Lake.

Mr. GEREN. How do you calculate it?

Mr. PAGE. If they didn't calculate that bump in the outset, and obviously you are saying they didn't, then there is something wrong.

Mr. GEREN. As I understand it, and I do not pretend to be an expert in that area, but for some of these contracts you do use original cost, and some you use replacement cost, and we are just looking at a window here where you are agreeable to an original cost contract until seven years from now.

Mr. PAGE. You have a mixed bag, and I have not seen that. That is what I am concerned about, and I don't know how that can be done. That is why I would like to respond to you a little better by going back and looking at it.

Mr. GEREN. All right.

Mr. PAGE. We will get back to you. If we need to, we will sit down and talk to you about it.

Mr. GEREN. All right. I certainly appreciate it, thank you very much.

Mr. PAGE. Yes, sir.

Mr. NOWAK. I would think that would be a good further conversation item. I just want to remind you that Mr. Geren did not go to Texas A&M, but he went to the University of Texas, and also, I understand that Geren's father did go to Texas A&M.

Mr. LAUGHLIN. And his grandfather, I might add.

Mr. NOWAK. And his grandfather.

Mr. HAMMERSCHMIDT. He is partly all right. He is not all bad.

Mr. **Nowak**. And Mr. Page, because of this connection, I just wanted you to know that all my life I wanted to go to Texas A&M. [Laughter.]

But we will get back to you with all of our scholastic problems as we move forward in the bill and again, thank you for your appearance here, and even more than that, thank you to being so responsive to the committee over the last couple of years that I have had the opportunity to work with you. I think it has been a great part of the success that the corps has had, and it makes our job much easier as we move through these to be able to discuss these kinds of problems in detail with goodwill.

Thank you very much.

Mr. **Page**. Thank you.

Mr. **Laughlin**. Mr. Chairman, I would point out that if Mr. Page has any desire to get even with the gentleman from Arkansas, the ranking Republican on the Committee is a graduate of the school that beat us this year, so you can take all that out on Mr. Hammerschmidt if you desire.

Mr. **Page**. After I leave the government, I will consider it.

Mr. **Hammerschmidt**. I know the Aggie Fight Song.

Mr. **Nowak**. Thank you very much.

[Mr. Page's prepared statement follows:]

DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY OF THE ARMY
(CIVIL WORKS)

COMPLETE STATEMENT

OF

THE HONORABLE ROBERT W. PAGE

ASSISTANT SECRETARY OF THE ARMY (CIVIL WORKS)

BEFORE THE

SUBCOMMITTEE ON WATER RESOURCES

COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

U.S. HOUSE OF REPRESENTATIVES

MARCH 1, 1990

**NOT TO BE RELEASED UNTIL APPROVED BY THE
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
U.S. HOUSE OF REPRESENTATIVES**

STATEMENT OF ROBERT W. PAGE
ASSISTANT SECRETARY OF THE ARMY (CIVIL WORKS)
BEFORE THE SUBCOMMITTEE ON WATER RESOURCES
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
U.S. HOUSE OF REPRESENTATIVES

Mr. Chairman and Members of the Subcommittee, I am pleased and honored to be here today to testify on potential water resources development legislation in the 101st Congress. Accompanying me are Dr. G. Edward Dickey, the Acting Principal Deputy Assistant Secretary of the Army (Civil Works), and Major General Patrick Kelly, Director of Civil Works of the Army Corps of Engineers.

My testimony today addresses the Administration's views for a supportable Water Resources Development Act of 1990. Then Major General Pat Kelly will go into detail on the specific projects that you requested to be briefed on.

First, I would note that without the leadership and cooperation of this committee, we could not have forged the landmark Water Resources Development Act of 1986 and followed it with the 1988 Act. Together we have affirmed the critical reforms of 1986, reestablished the two-year authorization cycle, and set the criteria for orderly development of sound water projects.

I am pleased to report to you that the Federal water resources development program is working well. In large part, cost-sharing sponsors have accepted the new project participation requirements. This should not be surprising, as the reforms of the 1986 Act were based on the recognition that water resource development projects produce tangible economic benefits and the recipients of those benefits can and should contribute the cost of the services they receive. To reduce the costs of providing those services, we have made significant internal organizational and procedural reforms to ensure that productive projects move forward according to timely schedules and within budget. In order to continue this success story, it is of prime importance to enact a Water Resources Development Act of 1990 which continues the process of putting the program on a strong beneficiary pay basis and which authorizes only projects that have completed the Executive Branch review process.

As background, I would like to discuss the general direction of the Army Civil Works program for the next decade and address two areas which deal with serious and urgent problems confronting the nation. The major issue in the water resources program during the 1980's was cost-sharing. The principle is now well established that readily identifiable beneficiaries of public services must pay a fair share of the cost of those services.

Looking ahead to the 90's, we must now focus on carrying out the water resources program in the most effective manner. To do so, we must use our resources to the optimum benefit of the nation. It is in that context that we are renewing and increasing our commitment to the quality of the environment. Despite some past criticism, the Corps of Engineers has a very good environmental record. We intend to make it even better. Projects which have favorable Chief's reports and those now in the planning phase are all designed with environmental quality in mind. Where there are unavoidable adverse impacts, those impacts are mitigated to the maximum practicable extent.

Other environmental initiatives include support for an extension of the program developed under Section 1135 of the 1986 Act to develop and fund projects for restoring environmental quality at existing projects. We have also suspended budgeting for continuation of construction of potentially environmentally damaging projects until the economic and environmental effects have been reviewed and we are satisfied that they will be sound projects from both economic and environmental perspectives. There are numerous other examples of heightened environmental sensitivity in our program.

We have also put Corps of Engineers capabilities to work on oil spill clean up activities. For example, in the Alaska oil spill, we modified a dredge to skim oil and remove it from the water. We are currently evaluating the potential and effectiveness of modifying other dredges for the same purpose.

In addition to this heightened sensitivity in Corps projects, we have made great strides in addressing environmental issues in the Corps regulatory programs. Those programs and accomplishments are the subject of separate hearings so I will not go into any details now. But we are especially pleased with the progress in dealing with wetlands issues in the 404 program.

While the principal mission of the Army Civil Works program remains water resources management and development, that mission will be carried out with an increased sensitivity to environmental quality.

I mentioned that there are two specific areas of concern that I would like to address. While these areas extend beyond the traditional water resources missions of the Army Civil Works program, I am discussing them in the context of our programs because I believe that the

Army Corps of Engineers has the planning, engineering, and construction expertise that can serve our nation well in these areas. I would expect the Corps to play a significant role in any Federal Government initiatives in these areas.

The first area is national infrastructure policy. There has been a great deal of news coverage, and there are several major technical and policy reports which document the critical need to revitalize our infrastructure. Funds have been requested for 1991 for the Corps to initiate discussions with other Federal and state agencies and the private sector on the need for an integrated National infrastructure policy and possible strategies for carrying out such a policy.

The second area that I would like to highlight is the magnetically levitated (MAGLEV) transportation system. MAGLEV offers a new concept in transportation which, when creatively developed, may provide the U. S. one of its best opportunities for economic expansion in the 21st century. MAGLEV could serve as a powerful new mode of U. S. transportation and as a globally marketable industry with technological spinoffs to other U. S. industries. In addition, MAGLEV holds great promise to replace a significant number of transportation vehicles in cargo and mass transportation. This would significantly reduce air emissions and perhaps reduce demands on the current transportation infrastructure. The cooperative interagency effort that we are developing would utilize the extensive technical and management expertise of the Corps and other agencies. This effort would also include cooperation with and cost sharing by the private sector to further advance the principle of identifiable beneficiaries paying for public services. It would also advance public/private partnerships so necessary in today's complex world of tight budget constraints.

There are very pressing public demands for new water resource project development. However, these demands can be met only in the context of certain guiding principles for a Water Resources Development Act of 1990. Those principles are:

o Preserve cost sharing, without exception

o Authorized projects must be economically justified, environmentally sound, and concurred in by the Administration.

o Do not shift non-Federal responsibilities to the Federal government.

o Advance the FY 1991 Budget beneficiary pay proposals in construction, operation, and maintenance of Federal projects

o Use Army Corps of Engineers expertise to benefit the Nation as provided in the FY 1991 Budget proposals for infrastructure and magnetic levitation.

All these principles are important to a well rounded program which we believe will use the resources of the Army Corps of Engineers to the maximum benefit of the public. We expect to submit a full legislative program in the coming weeks which is faithful to these principles. I ask you for your support.

Mr. Chairman, that concludes my testimony. Dr. Dickey and I will be happy to answer any questions that you have. After that, Major General Patrick Kelly will describe the specific projects being recommended and those additional projects which you asked to be addressed.

Mr. NOWAK. General Kelly.

TESTIMONY OF MAJ. GEN. PATRICK KELLY, DIRECTOR OF CIVIL WORKS, U.S. ARMY CORPS OF ENGINEERS

General KELLY. Thank you very much, Mr. Chairman. With me today is Bill Lockwood and Harry Kitch, from our Policy and Planning Division.

I'll brief you on the 21 water resource projects which have been recommended in feasibility reports for which we do have final reports.

I'll go through a slide presentation of all the 21. The first five are supported by the Administration, and the remaining 16 are those for which the Administration has not yet completed its review. The Administration therefore does not support the latter group at this time. However, we expect review of many of these remaining projects to be completed within the next few weeks.

Generally, all of these projects have satisfied the NEPA requirements. Any outstanding issues are addressed in my presentation. For all proposed flood control projects, the area to be protected is participating in the flood insurance program. All except the plan recommended for Fort Wayne, Indiana, are the National Economic Development Plan. All project costs are at October 1989 price levels, and a discount rate of 8⅞ percent was used for all economic evaluations.

Under Mr. Page's leadership we are instituting a new program of Life Cycle project management which requires new cost estimating procedures and practices. These new procedures use state-of-the-art practices to develop more detailed cost estimates then were used at the time these studies were underway. During the transition period, the new procedures will be used to verify the current estimates early in the design phase. Therefore, the economic evaluations presented in this testimony may be revised in the near future. After review by the Administration, we will report any significant changes immediately to the committee.

I will give you a summary of each project. Detailed information is in the green books I have previously provided.

PASSAIC RIVER BASIN, NEW YORK AND NEW JERSEY

We will start out with the report concerning flood damage reduction in the Passaic River Basin in New Jersey and New York.

The Passaic Basin is a 935 square mile watershed in northeastern New Jersey and southeastern New York, within a 35 mile radius of New York City.

General KELLY. The Passaic has a long history of flooding dating back to the early 1800s. This slide shows flooding in the City of Paterson during the 1984 flood, which was the most devastating recent flood. That flood, which was a 25 to 50 year frequency event in various parts of the basin, claimed three lives and caused $335 million in damages to about 6,400 properties. Approximately 9,400 people were evacuated from their homes in that storm.

The recommended plan of protection consists of large diversion tunnels, channel modifications, levees, flood walls, preservation of natural flood storage areas, and fish and wildlife mitigation measures. These measures would provide protection to the basin's major flood damage areas against floods ranging from a 100 year to a 500 year event.

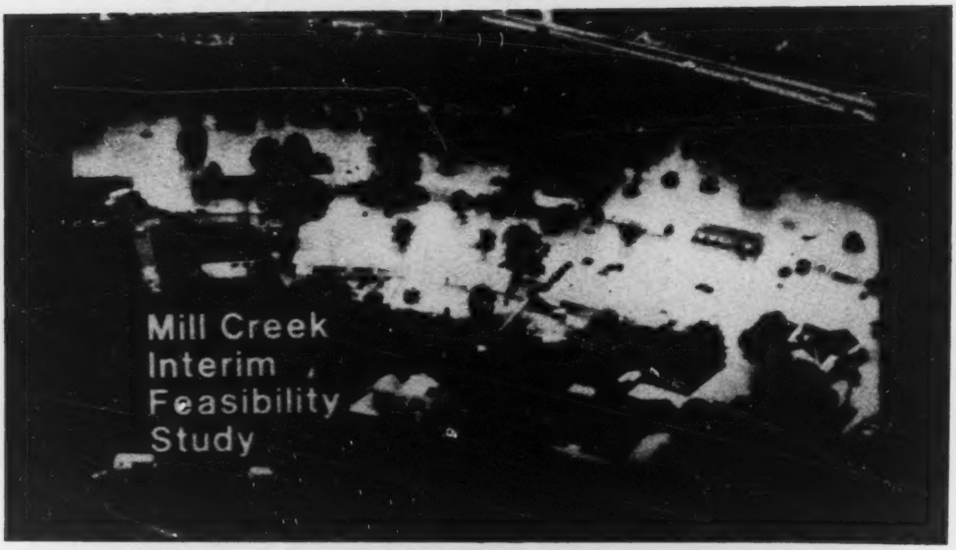
The total first cost of the project is $913.5 million, with a Federal share of $674.6 million, and a non-Federal share of $238.9 million. Average annual benefits are $142.0 million and average annual costs are $96.0 million. The benefit cost ratio is 1.5.

The State of New Jersey, through its Department of Environmental Protection, will be the non-federal sponsor.

MILL CREEK BASIN/SEVENMILE CREEK, TN

The next report concerns flood damage in Mill Creek Basin in the metropolitan region of Nashville, Tennessee.

The Mill Creek Basin lies primarily within Davidson and Williamson Counties in middle Tennessee. The basin is about 20 miles long, averages six miles in width, and ranges from flat to moderately sloping along the main stem.



General **KELLY**. Over $40 million in flood related damages resulted from the 1979 flood-of-record shown here. Most of the damage occurred in the lower, more developed reaches of the Mill Creek Basin. However, the flooding problem extends for about 24 miles along Mill Creek, and about three miles along its primary tributary, Sevenmile Creek.

The report recommends construction of two unregulated dry-bed reservoirs, one on Mill Creek and one on Sevenmile Creek; channel widening on Sevenmile Creek; expansion of an existing flood warning system; and environmental design features, including creation of deep pools and selected landscaping on Sevenmile Creek.

The total first cost is estimated at $14.5 million, of which $7.25 million would be non-Federal.

The benefit cost ratio is 1.5.

The metropolitan government of Nashville and Davidson County have agreed to act as the non-Federal sponsor.

The next report addresses improvements for flood damage reduction along Nogales Wash in downtown Nogales, Arizona, and along Potrero Creek, a tributary to Nogales Wash, in Chula Vista, Arizona.

Nogales is located in south-central Arizona, right on the border with Mexico. Chula Vista is adjacent to Nogales.

Flooding in downtown Nogales occurs when storm water from Mexico exceeds capacity of the inlets to the existing covered channels.

In Chula Vista, frequent flood damages occur due to limited channel capacity. Three lives were lost during a flood in October 1977, which affected more than 40 homes and caused over $1 million in damages.

The recommended plan for downtown Nogales consists of collector channels along the American side of the U.S./Mexican border which would provide a 33-year level of protection to downtown Nogales.

In Chula Vista, channel improvements would provide 100-year protection to the community. The recommended plan also includes a watershed flood warning system, portions of which would be installed in Mexico. We will work through the Department of State, in cooperation with the International Boundary and Water Commission, to install and maintain the required gages.

The economics of the project are shown here.

ECONOMIC SUMMARY

Oct. 1989 price levels 8 7/8% discount rate

TOTAL PROJECT COST	$7,300,000
AVERAGE ANNUAL COSTS	$ 678,000
AVERAGE ANNUAL BENEFITS	$1,370,000
BENEFIT COST RATIO	2.1

Nogales Wash and Tribs.

General KELLY. The Santa Cruz County Flood Control District strongly supports and will sponsor the project.

COYOTE AND BERRYESSA CREEKS, CA

Our next report concerns improvements for flood damage reduction along Coyote and Berryessa Creeks in Santa Clara County, California.

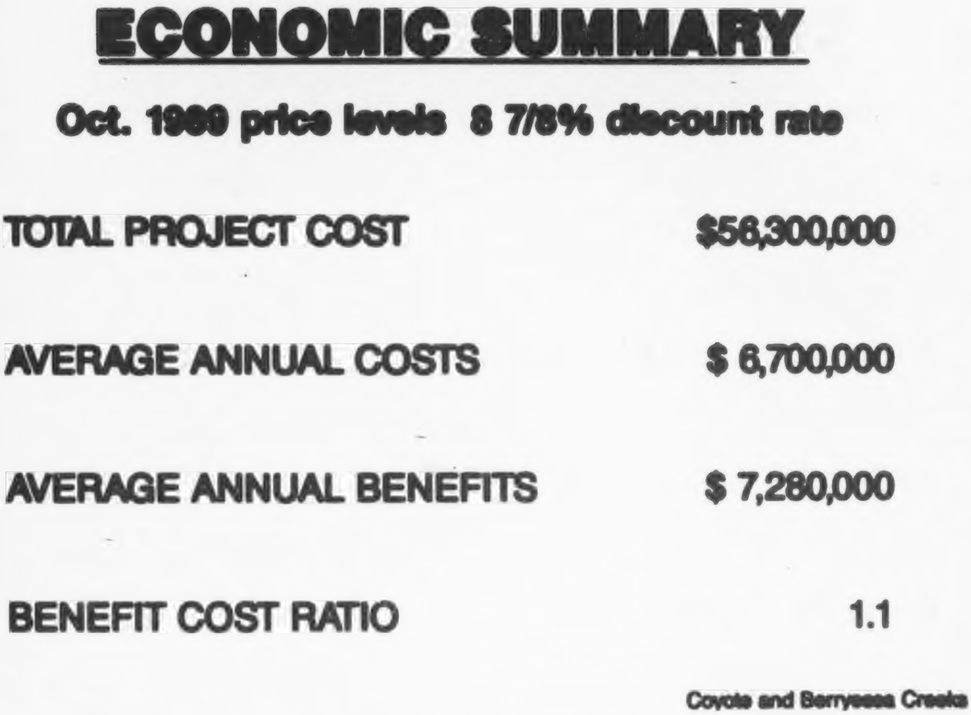
Coyote and Berryessa Creeks are located at the southern tip of San Francisco Bay.

Coyote Creek has frequently flooded northern San Jose, including the community of Alviso, and sections of Milpitas. Intense spring storms have occurred on Coyote Creek a number of times, with the most severe flooding occurring in 1955, 1958, 1969, 1982, and, as shown here in 1983. A 100-year flood event would cause flood damages of over $100 million under today's conditions.

General **Kelly**. Berryessa Creek is the source of flooding in residential neighborhoods of Milpitas. A 100-year flood along Berryessa Creek would cause an estimated $20 million in damages.

The recommended plan would provide 100-year frequency flood protection for both Coyote and Berryessa Creeks. The Coyote Creek plan consists of about five miles of earthen channels and offset levees, and incorporates features to mitigate damages to fish and wildlife habitat. The Berryessa Creek plan consists of about four miles of concrete channel improvements and offset levees to an existing Greenbelt Park zone. One sediment basin would be built and one existing basin will be improved.

The economics of this project are shown on this slide.



ECONOMIC SUMMARY

Oct. 1989 price levels 8 7/8% discount rate

TOTAL PROJECT COST	$56,300,000
AVERAGE ANNUAL COSTS	$ 6,700,000
AVERAGE ANNUAL BENEFITS	$ 7,280,000
BENEFIT COST RATIO	1.1

Coyote and Berryessa Creeks

General KELLY. The Santa Clara Valley Water District supports and will sponsor the project.

Mr. STANGELAND. Excuse me, what is the cost sharing on Berryessa and Coyote Creek?

General KELLY. The minimum flood control non-Federal share is 25 percent but they also must supply lands easements, and rights-of-way. In this case, because of the lands easements, and rights-of-way, the non-Federal cost is about 30 percent.

Mr. STANGELAND. Thank you.

General KELLY. The next report which I am addressing concerns the development of a greenbelt recreation corridor between Lewis and Ray Roberts Lakes in lieu of the traditional lake-type recreation facilities currently authorized for development at Lewisville Lake. These are in north central Texas.

It is a post-authorization change report undertaken at the request of the non-Federal interests in the area.

The Ray Roberts and Lewisville Lakes lie within the Dallas, Denton, Fort Worth metropolitan area in north central Texas.

This rapidly urbanizing area has a need for stream oriented, open-space recreation areas. Opportunities to meet stream oriented recreation demands are created by this two lake system operating in tandem.

The report recommends acquisition and management of 660 acres in fee, conversion of 440 acres from flowage easement to fee, and 500 acres of conservation easement along the 14 river mile stretch of the Elm Fork of the Trinity River between Ray Roberts Dam and Lewisville Lake for recreation purposes.

The economics of this project are as shown on the next slide.

ECONOMIC SUMMARY

Oct. 1989 price levels 8 7/8% discount rate

TOTAL PROJECT COST	$4,620,000
AVERAGE ANNUAL COSTS	$ 554,200
AVERAGE ANNUAL BENEFITS	$1,718,200
BENEFIT COST RATIO	3.1

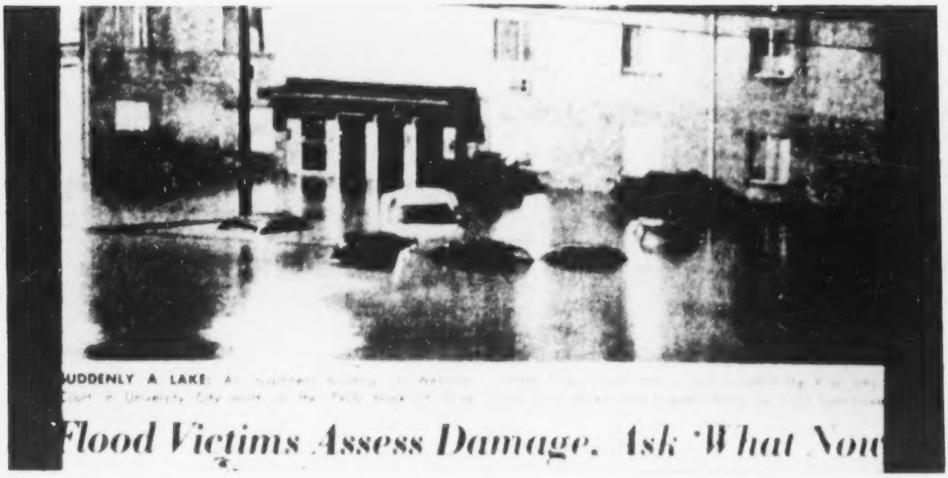
Ray Roberts

General KELLY. The cities of Dallas and Denton, and the Texas Parks and Wildlife Department will serve as local sponsors for the project.

Mr. Chairman, this concludes my discussion of projects which have the endorsement of the Executive branch. The following projects have been recommended by the Chief of Engineers and are being reviewed by the Secretary consistent with Executive Branch requirements. This review examines both the technical and policy aspects of these projects. As such, the following testimony should not be construed as an endorsement of the suitability of these projects for authorization.

The first report in this group concerns flood damage reduction for River Des Peres, Missouri.

The 111 square mile study area is located in west central St. Louis County, Missouri, and includes the City of St. Louis.



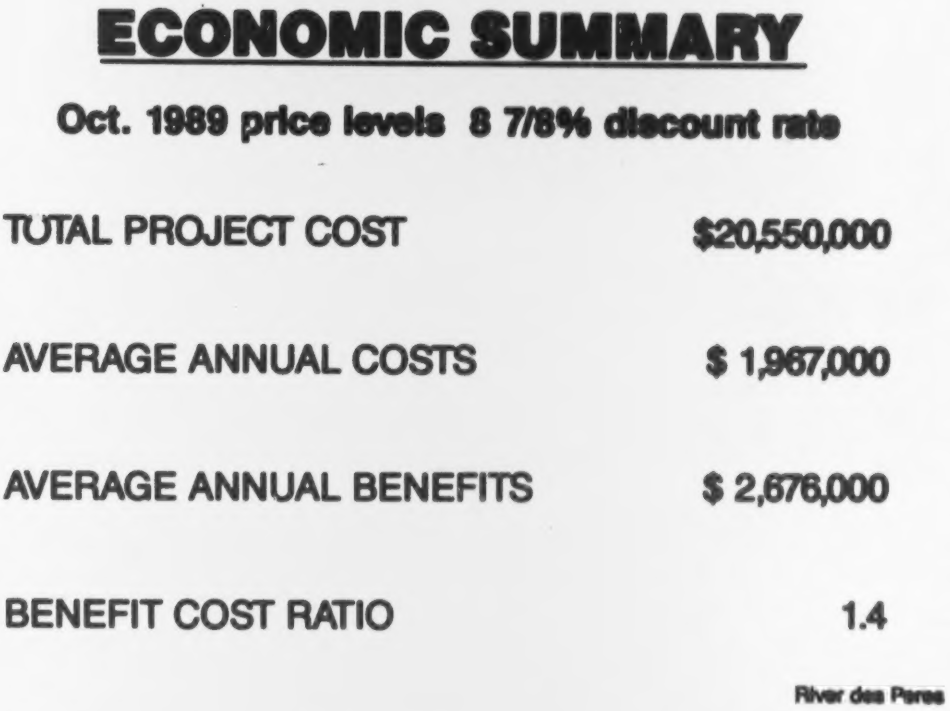
UDDENLY A LAKE:

Flood Victims Assess Damage, Ask 'What Now

General KELLY. This slide shows flooding in 1973. The principle flood problems occur along Deer Creek and University City Branch, tributaries of upper and lower river Des Peres. Stream bank erosion is also a problem due to the highly erodible nature of the soils.

The recommended plan provides channel improvements along both University City Branch and Deer Creek and a basin-wide flood warning and forecasting system. Five structures along Kirkwook Branch would be floodproofed, and a trail system would be provided along the improved channels.

The economics of this project are as shown.



ECONOMIC SUMMARY

Oct. 1989 price levels 8 7/8% discount rate

TOTAL PROJECT COST	$20,550,000
AVERAGE ANNUAL COSTS	$ 1,967,000
AVERAGE ANNUAL BENEFITS	$ 2,676,000
BENEFIT COST RATIO	1.4

River des Peres

General KELLY. The Metropolitan St. Louis Sewer District will provide the local cooperation.

This report involves another project in Missouri which is Coldwater Creek, located in highly urbanized St. Louis County, about six miles north and west of the City of St. Louis.

The most severe flooding occurs along the main channel of the creek as a result of intense rainfall within the drainage basin. This map shows the extent of the floodplain in an area north of I-270. Stream bank erosion is also a problem at many locations.

FLOOD PROBLEM
10-YEAR FLOOD
100 YEAR FLOOD
STANDARD PROJECT FLOOD
COLDWATER CREEK, MISSOURI

General Kelly. The recommended plan for Coldwater Creek includes widening 10 miles of the main channel, enlarging the opening through a downstream railroad embankment, two small levees, a flood forecasting and warning system, a recreation trail, and two picnic areas.

There are two radioactive material storage sites adjacent to the creek between the airport and I-270. Radioactive material from these sites has worked into the creek in a area just north of the airport. The Department of Energy has a remedial action program in place to cleanup and remove such materials that have worked into the creek, and to create safe, permanent storage facilities.

The Chief of Engineers recommended that construction of the proposed plan for the lower Coldwater Creek not commence until there is reasonable assurance from the Department of Energy that channel excavation and other work in reaches of Coldwater Creek suspected of radioactive contamination will not present a health hazard to construction workers and subsequently to the local populace.

The economics of this project are as shown.

ECONOMIC SUMMARY

Oct. 1989 price levels 8 7/8% discount rate

TOTAL PROJECT COST	$22,380,000
AVERAGE ANNUAL COSTS	$ 2,031,000
AVERAGE ANNUAL BENEFITS	$ 3,185,000
BENEFIT COST RATIO	1.6

Coldwater Creek

General KELLY. Monitoring of radioactively during construction, if necessary, is included in the project at 100 percent Federal cost. This special cost sharing is appropriate since any residual of radioactive material would be the result of a Federally sponsored program.

The Metropolitan St. Louis Sewer District has stated it's willingness to provide the requirements of local cooperation.

Turning now to Kansas City, Missouri.

Mr. NOWAK. Before we leave that, General, where was the radioactive material storage site; who was in charge of that; where did that eminate from?

General KELLY. There were two sites adjacent to the creek that have been used for many years, and they were under the auspices of the Department of Energy.

Mr. NOWAK. The Department of Energy.

General KELLY. Yes, sir, and that is who we have been coordinating with.

Mr. NOWAK. But any movement would be at Federal cost.

General KELLY. That is correct.

Mr. NOWAK. One hundred percent Federal cost.

General KELLY. That is correct.

Mr. NOWAK. Do they give a contribution to this, the Department of Energy?

General KELLY. They are doing a survey right now to determine the extent of the hazardous material in the creek and to find out exactly where it is located. It is going to be their responsibility to come up with the plan and to pay for whatever remedial measures are required.

Mr. **Nowak**. Is there any use of that stream for drinking water downstream of this area?

General **Kelly**. No, there is not.

Mr. **Nowak**. Thank you.

BRUSH CREEK FLOOD CONTROL PROJECT, MISSOURI

General **Kelly**. The next report concerns the Brush Creek Flood Control project in Kansas City, Missouri. The project was authorized in the Water Resources Development Act of 1986 at a maximum cost of $21.6 million. However, authorization for an increased project cost is required by the project cost limit provisions of section 902 of the Act.

Brush Creek is a tributary of the Blue River in Kansas City, Missouri.

The record flood of September 1977, as pictured in this slide, caused the loss of 12 lives and over $66 million in economic losses.

General **Kelly**. The project extends from just downstream of Roanoke Parkway about 7,500 feet, to a point just below Troost Avenue. The existing channel would be deepened an average of five feet and existing conduits would be replaced with an open channel.

In addition, the Water Resources Development Act of 1988 authorized the Corps of Engineers to design and construct, at local expense, upstream and downstream non-Federal extensions to the project. The Corps of Engineers intends to design all components of work as a unit to ensure compatibility and optimization.

During preconstruction engineering and design, extensive hydraulic model studies indicated that two additional bridges would have to be replaced in the addition to those previously identified in the original authorization. Further geological investigations indicate that the channel bottom and walls would have to be lined with concrete to resist anticipated water velocities.

As a result of these required design changes, the estimated project cost increased to $26.3 million for the Federal project only. Because section 902 of the Water Resources Development Act of 1986 limits the cost of this project to $21.6 million, authorization is needed to allow for construction of the modified project, hence this is a postauthorization change.

The economic benefits and costs are shown here at the new project cost. The local sponsor, Kansas City, Missouri, will provide the required local requirements, and pay for the non-Federal portions of the project.

BOSTON HARBOR

ECONOMIC SUMMARY

Oct. 1989 price levels 8 7/8% discount rate

TOTAL PROJECT COST	$26,300,000
AVERAGE ANNUAL COSTS	$ 2,445,100
AVERAGE ANNUAL BENEFITS	$ 2,812,200
BENEFIT COST RATIO	1.2

Brush Creek

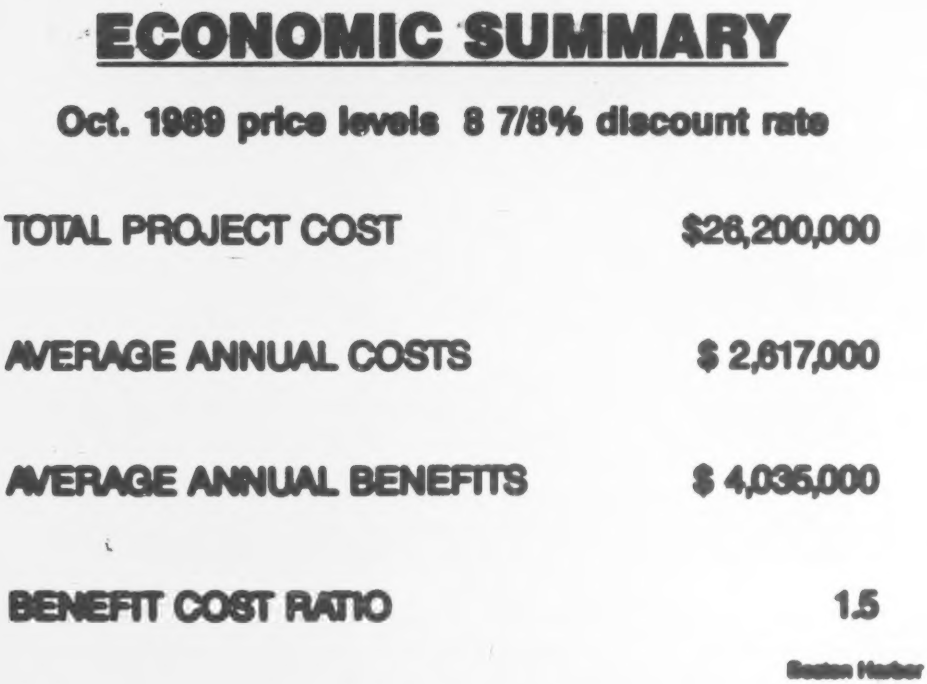
General KELLY. Shifting now to the East Coast. This report addresses the feasibility of modifying the existing Federal navigation channels in Boston Harbor.

While the port's principal entrance and main access channels are 40 feet deep, the three major tributaries, of which this is one, are only 35 feet deep. The resulting tidal delays and limits on vessel size and loading place significant restrictions on shippers. This causes higher transportation costs and operating inefficiencies.

CHELSEA RIVER
BOSTON HARBOR

General **Kelly**. The recommended project consists of deepening the Reserved Channel and Mystic River Channel to 40 feet; widening and deepening the inner confluence area to 40 feet; deepening the existing Chelsea River Channel to 38 feet; and re-marking of the President Roads Ship Channel, resulting in a 20 percent enlargement of the deep water anchorage. This report remains with the Corps of Engineers pending completion of testing of dredged material to determine its suitability for ocean disposal.

The economics of this project are as shown.



ECONOMIC SUMMARY

Oct. 1989 price levels 8 7/8% discount rate

TOTAL PROJECT COST	$26,200,000
AVERAGE ANNUAL COSTS	$ 2,617,000
AVERAGE ANNUAL BENEFITS	$ 4,036,000
BENEFIT COST RATIO	1.5

Boston Harbor

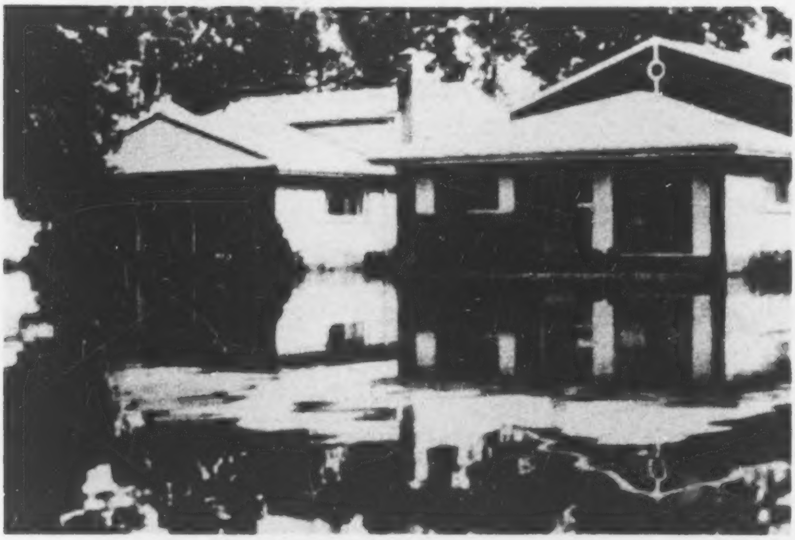
General KELLY. The Massachusetts Port Authority will act as project sponsor.

This report concerns flood damage reduction for the Ecorse Creek Drainage Basin located in southeastern Michigan.

The Ecorse Creek Drainage Basin, just south of the City of Detroit, is within Wayne County, Michigan. The primary tributaries include North Branch Ecorse Creek and Sexton-Kilfoil Drain.

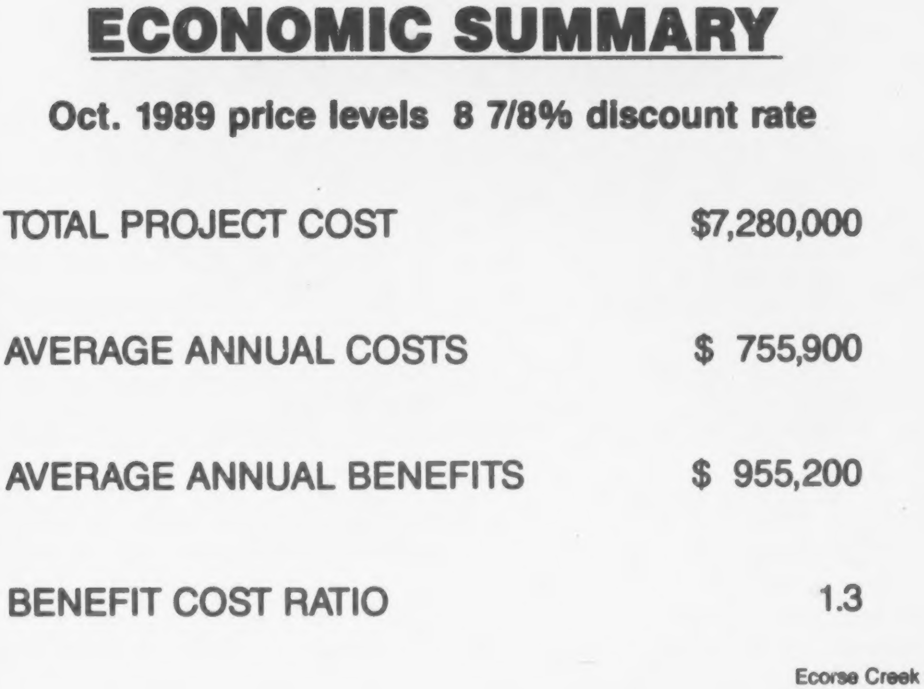
This slide shows flooding in July 1979. The flooding problems are caused by the severely limited hydraulic capacity of both channels.

FORT WAYNE, IN, FLOOD DAMAGE



The recommended plan would provide protection against a two to seven-year flood event by construction of a storm water retention basin off-line of the North Branch Ecorse Creek. The basin would collect and store floodwaters in excess of the creek's capacity.

The economics of this plan are shown here.



ECONOMIC SUMMARY

Oct. 1989 price levels 8 7/8% discount rate

TOTAL PROJECT COST	$7,280,000
AVERAGE ANNUAL COSTS	$ 755,900
AVERAGE ANNUAL BENEFITS	$ 955,200
BENEFIT COST RATIO	1.3

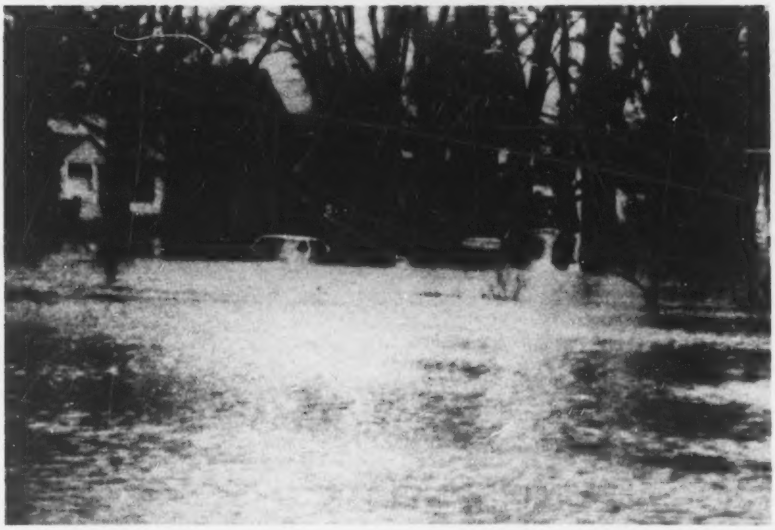
Ecorse Creek

General KELLY. Wayne County will act as the project sponsor.

This next report concerns flood damage reduction for the City of Fort Wayne, Indiana.

In the City of Fort Wayne, the St. Joseph and St. Marys Rivers join to form the headwaters of the Maumee River.

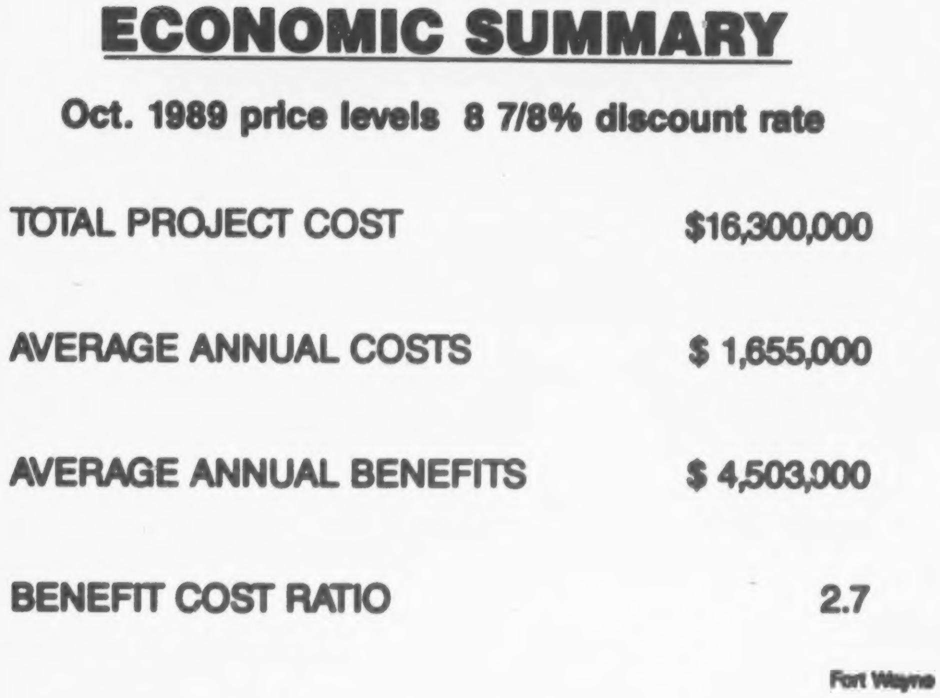
Flooding from St. Marys River in March 1982, is shown here. General flooding occurs in the Fort Wayne area as a result of high flows in either the St. Joseph or St. Marys Rivers. Significant historical flooding occurred in 1913, 1982 and again in 1985.



General **Kelly**. The recommended plan provides for upgrading levees, floodwalls, and sheet pile cribs along the tributaries. A new pumping station, backwater gates and several storm sewer modifications are required. The project would provide a 100-year level of protection.

Now I would like to point out that the recommended plan is not the NED Plan for this project. The only difference between the NED Plan and the recommended plan is that the NED Plan provides a 200-year level of protection, whereas the recommended plan provides 100-year. The recommended plan was chosen at the request of the local sponsors who feel it better meets their long term needs.

The project economics are shown here.



ECONOMIC SUMMARY

Oct. 1989 price levels 8 7/8% discount rate

TOTAL PROJECT COST	$16,300,000
AVERAGE ANNUAL COSTS	$ 1,655,000
AVERAGE ANNUAL BENEFITS	$ 4,503,000
BENEFIT COST RATIO	2.7

Fort Wayne

Mr. STANGELAND. General, what is the local cost share on that project, and what would the NED Plan cost? Do you have an estimate of the NED Plan, which is obviously higher than the 200-year flood level?

General KELLY. Sir, I have that information. May I provide that in a moment?

Mr. STANGELAND. You may. What is the cost share on this project, Federal and local?

General KELLY. You have to look at the value of the lands, easements, and rights-of-way come in, because that influences the cost sharing. I will have to provide that.

The non-Federal share of the cost of the recommended plan is 26 percent of the total cost. This represents the minimum cost sharing of 25 percent of the costs assigned to flood control, plus 50 percent of the separable cost of the recreation features.

Mr. STANGELAND. Okay, thank you.

General KELLY. My staff has pointed out that the difference between the two plans, the NED Plan and the recommended plan is about $4 million. That means the NED plan is estimated to cost about $20 million.

Mr. STANGELAND. That is not a great deal to go from 100-year to 200-year protection. I understand that it is a local choice.

General KELLY. It is a local choice. We are seeing a lot of that, by the way.

Mr. STANGELAND. All right.

GREAT LAKES INLAND WATER STUDY

General KELLY. The next report addresses the commercial navigation aspects of the Great Lakes connecting channels and harbors.

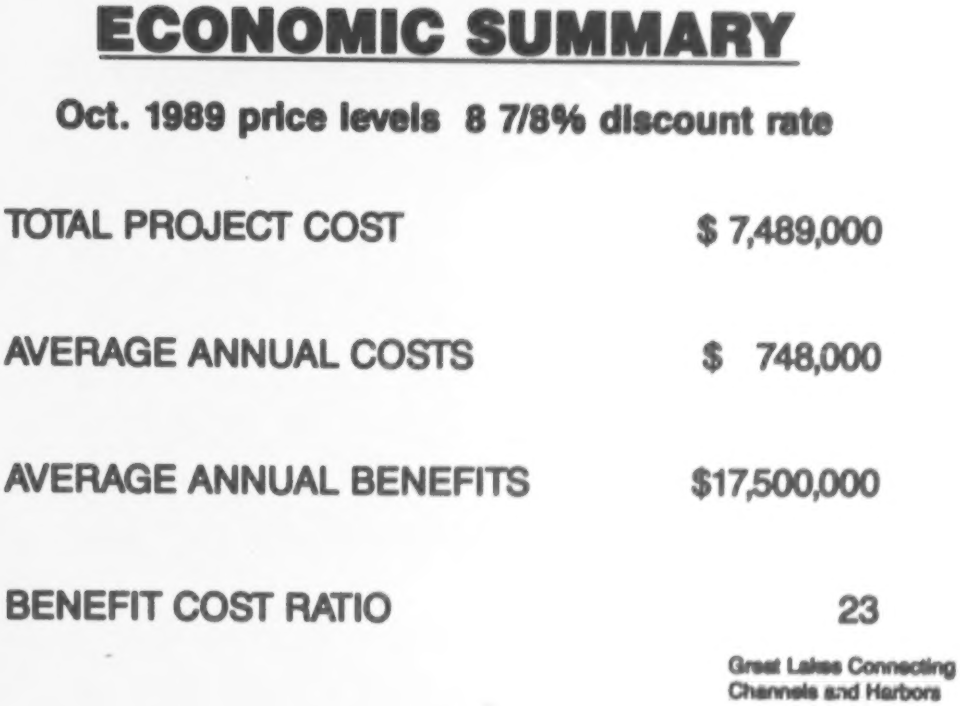
The Great Lakes Connecting Channels and Harbors Study area included the waterways between Lakes Superior and Huron, Lakes Huron and Michigan, and Lakes Huron and Erie, which provide deep-draft commercial navigation between the upper four Great Lakes and the deep-draft harbors upstream of the Welland Canal.

Problems and opportunities identified within the study area included the need to maximize efficient use of the system by improved service to class 10 vessels as shown on this slide.

General **Kelly**. The recommended plan provides for deepening along the upper St. Marys River and channels at Duluth harbor to provide a maximum safe draft of twenty six and one half feet.

Portions of the St. Marys River will be deepened, and the dredged materials will be deposited in Izaak Walton Bay to form a habitat island for the endangered Piping Plover. The State of Michigan has stated its intent to act as the project sponsor for the upper St. Marys River portion.

The entrance to the lower channels at the Duluth portion of the Duluth-Superior harbor which will be deepened, and the dredged materials will be placed in an upland site. The City of Duluth has expressed its willingness to be the project sponsor for this portion.



ECONOMIC SUMMARY

Oct. 1989 price levels 8 7/8% discount rate

TOTAL PROJECT COST	$ 7,489,000
AVERAGE ANNUAL COSTS	$ 748,000
AVERAGE ANNUAL BENEFITS	$17,500,000
BENEFIT COST RATIO	23

Great Lakes Connecting
Channels and Harbors

The projects costs and benefits are shown here. I might point out that you can see that it has a very significant benefit to cost ratio.

MARTIN COUNTY, FL

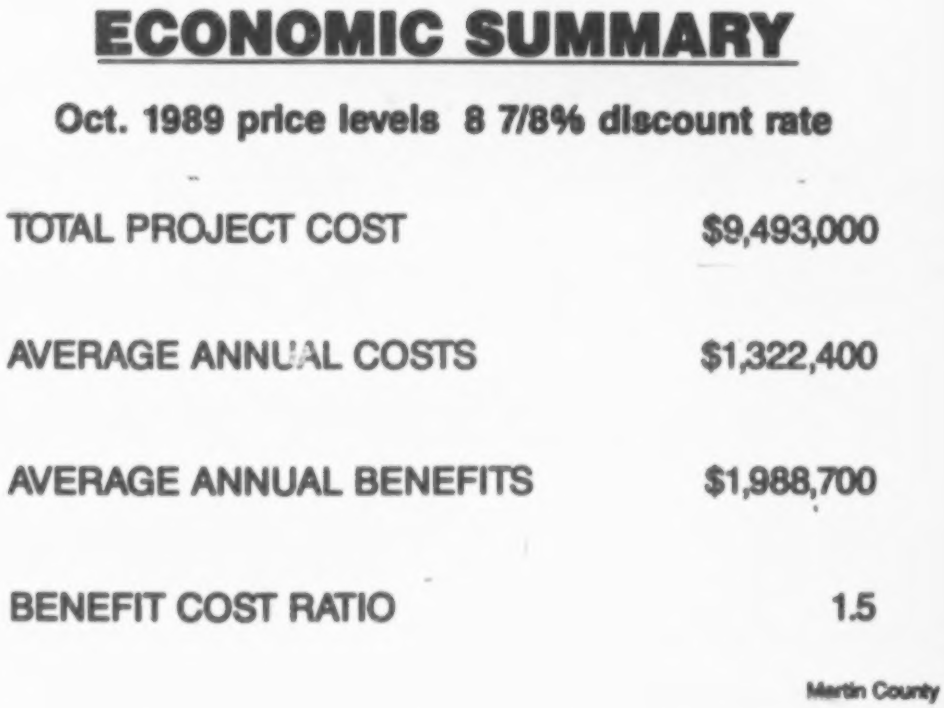
General KELLY. This next report concerns storm damage reduction improvements at Martin County, Florida.

The project area encompasses the 22 miles of ocean shorefront of Martin County, which is located on the Atlantic Coast about 15 miles south of Jacksonville.

The project area has experienced erosion and shoreline recession since at least 1882. Northeasters have caused significant erosion of the dune, which has left the shorefront susceptible to damage from frequent storms. This photo was taken following the 1984 storm.

General **Kelly**. The recommended plan consists of restoration of about four miles of the primary dune system to an elevation of 12.5 feet, and a beach with a 35-foot-wide berm at an elevation of eight feet which would protect the dune system during less than design storm conditions. Periodic beach nourishment would be provided as needed.

The estimated total first cost of the project is $9.493 million. The rest of the economics are shown here.



ECONOMIC SUMMARY

Oct. 1989 price levels 8 7/8% discount rate

TOTAL PROJECT COST	$9,493,000
AVERAGE ANNUAL COSTS	$1,322,400
AVERAGE ANNUAL BENEFITS	$1,988,700
BENEFIT COST RATIO	1.5

Martin County

General KELLY. The Martin County Board of Commissioners will sponsor the project.

PROJECTS FOR NORTH CAROLINA/SOUTH CAROLINA

We have another storm damage reduction project in Myrtle Beach, South Carolina.

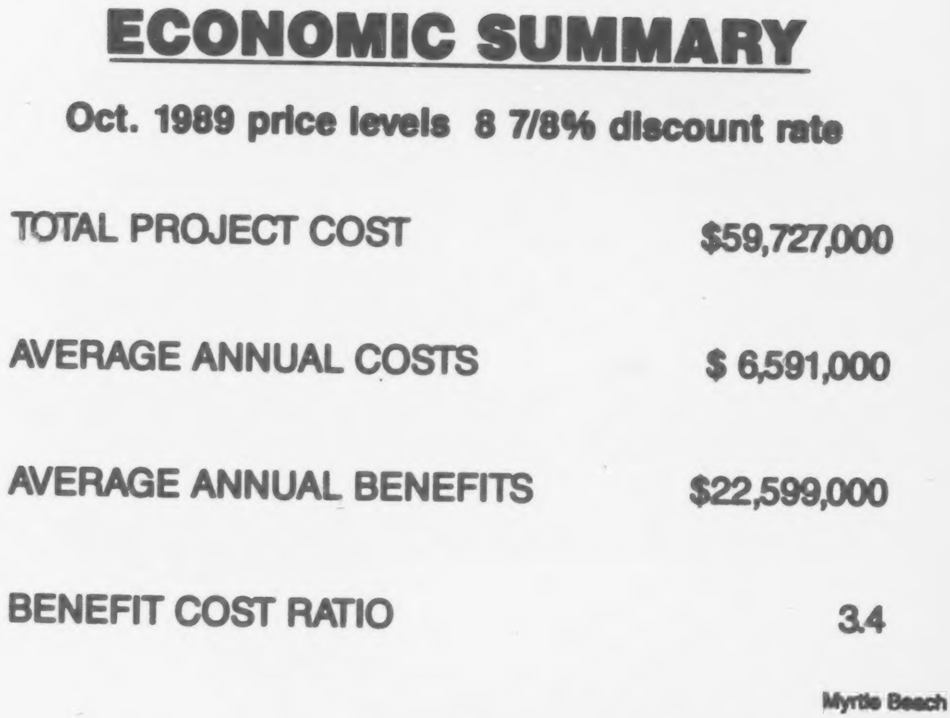
This project area extends from Little River Inlet at the North Carolina/South Carolina state line southerly to the vicinity of Murrells Inlet.

The damage potential of the study area has recently been demonstrated as a result of the winter storms of 1986/1987 and Hurricane Hugo in 1989. The storm of 1st and 2nd December 1986, caused an estimated $2 million in structural damage. This slide shows damage at Garden City after the January 1, 1987 Northeaster, which caused damages of $13.3 million. Hurricane Hugo, which occurred on 21 September 1989, caused damages which are still being assessed. Based on without project conditions and historical shoreline erosion rates, the average annual equivalent damage to 1,400 structures is estimated to be $21.549 million.

Myrtle Beach and vicinity, S.C.

General KELLY. The recommended plan consists of the placement of a protective beach in the three separable areas shown here, and is designed to provide protection from a 5-year storm surge. Collectively, the plan would place about 5 million cubic yards of sand over a total project reach of 22.6 miles.

The economics of this project are as shown.



ECONOMIC SUMMARY

Oct. 1989 price levels 8 7/8% discount rate

TOTAL PROJECT COST	$59,727,000
AVERAGE ANNUAL COSTS	$ 6,591,000
AVERAGE ANNUAL BENEFITS	$22,599,000
BENEFIT COST RATIO	3.4

Myrtle Beach

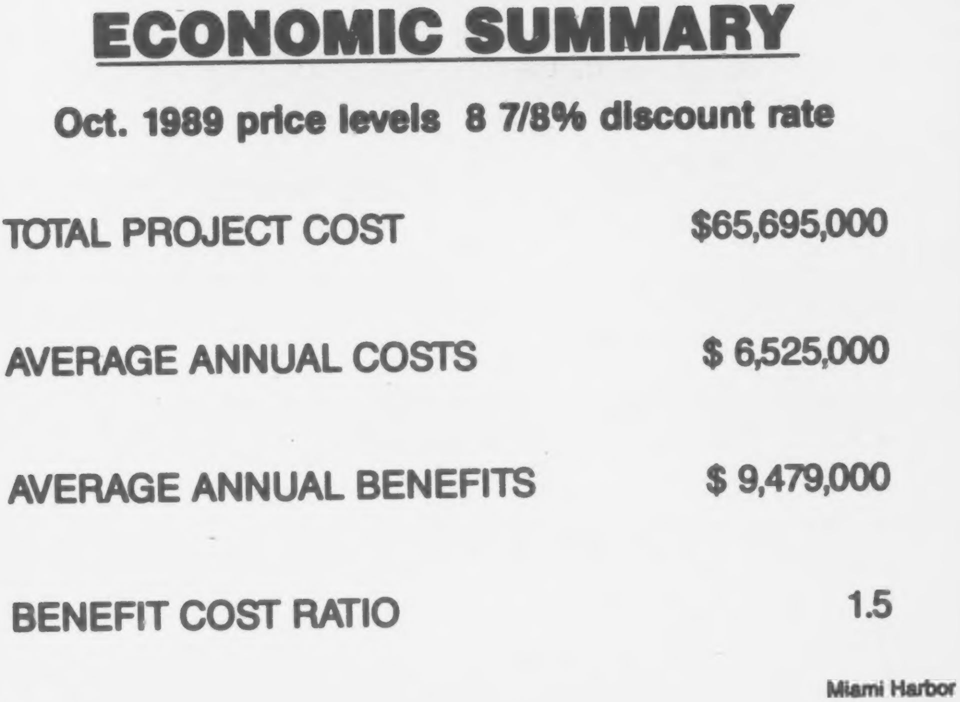
General KELLY. The cities of North Myrtle Beach, Myrtle Beach, Surfside Beach, Atlantic Beach, and Garden City have indicated their intent to act as cosponsors for this project.

Now we have a navigation project also in Florida, and this is in Miami Harbor, which is in the Northern part of Biscayne Bay, on the southeast coast of Florida. The City of Miami Beach is on a peninsula opposite Miami.

Current problems involve difficulties in vessel handling in the entrance channel, the turn from the main channel into the south channel, and turning in the Lummus/Dodge Island Turning Basin.

The recommended plan would provide up to 300 feet of additional width in the dogleg turn of the bar cut; deepen the outer channel to 44 feet; deepen the interior channels to 42 feet; and enlarge the Lummus/Dodge Island Turning Basin; and widen Government Cut. We are working to insure that all environmental concerns are resolved.

The estimated total first cost of this project is about $66 million, and the rest of the economics are as shown.



ECONOMIC SUMMARY

Oct. 1989 price levels 8 7/8% discount rate

TOTAL PROJECT COST	$65,695,000
AVERAGE ANNUAL COSTS	$ 6,525,000
AVERAGE ANNUAL BENEFITS	$ 9,479,000
BENEFIT COST RATIO	1.5

Miami Harbor

Mr. Hammerschmidt. General, what is the cost sharing on that, 10 percent or 20 percent?

General Kelly. This is greater than 40 feet——

Mr. Hammerschmidt. Oh, it is greater than 40 feet.

General Kelly. Yes, sir.

Mr. Hammerschmidt. So it would be 100 percent.

General Kelly. No, sir, it is 25 percent up to 45 feet, and over 45 feet it is 50 percent.

Mr. Nowak. We are looking, General, on page 22. You have total estimated first costs as $65 million.

General Kelly. Yes, that is correct.

Mr. Nowak. The Federal share would be $41 million.

General Kelly. Yes, the Federal share is $41.9 million.

Mr. Nowak. And the non-Federal share would be $23 million?

General Kelly. Yes, $23.8 million is the non-Federal share.

Mr. Nowak. Is that correct?

General Kelly. Yes, that is correct.

Mr. Nowak. How does your cost sharing come in as you go over 40 foot.

General Kelly. I believe the cost sharing requirement changes at 45 feet.

Mr. Nowak. Forty-five.

General Kelly. The non-Federal cost includes 25 percent of the total cost of constructing the general navigation facilities, plus an additional 10 percent of the cost of these facilities must be repaid over a period not to exceed 30 years. The non-Federal sponsor also must provide lands, easements, rights-of-way, relocations, and dredged material disposal areas, but these costs are credited against the additional 10 percent payment. When you add those together, you come up with a non-Federal cost of $23.8 million at Miami Harbor.

Mr. HAMMERSCHMIDT. So the 25 percent is just for the dredging.

General KELLY. Yes, that is correct. It is the upfront share.

Mr. NOWAK. Thank you.

General KELLY. Dade County, Florida through the Port of Miami will sponsor the project.

The next report concerns flood damage reduction along Rio De La Plata in the municipalities of Dorado, Toa Baja, and Toa Alta, Puerto Rico.

The Rio De La Plata Basin is in the north-central region of the island, where it drains about 240 square miles. It's mouth is about 11 miles west of San Juan.

Flooding in the project area has affected some 12,000 families, 300 industrial and commercial establishments, streets and roads, and numerous public buildings and facilities. This slide shows flooding in Toa Baja in 1985. The whole town of Toa Baja, and portions of several other towns are subject to frequent flooding. Quantifiable average annual damages are estimated at $7.5 million.

General **Kelly**. The recommended plan provides a 150-year level of protection for the downstream portions of the basin, and a 100-year incidental level of protection for the Toa Alta/San Jose areas. The plan consists of levees on both banks, and includes widening and straightening about 14 kilometers of the main river channels.

The first cost of the project is estimated at $56.985 million, and the economics of the plan are as shown.

BAYOU LA BATRE, AL

ECONOMIC SUMMARY

Oct. 1989 price levels 8 7/8% discount rate

TOTAL PROJECT COST	$56,985,000
AVERAGE ANNUAL COSTS	$ 6,113,000
AVERAGE ANNUAL BENEFITS	$10,205,000
BENEFIT COST RATIO	1.7

Rio De La Plata

General KELLY. The Puerto Rico Department of Natural Resources will be the non-Federal sponsor for this project.

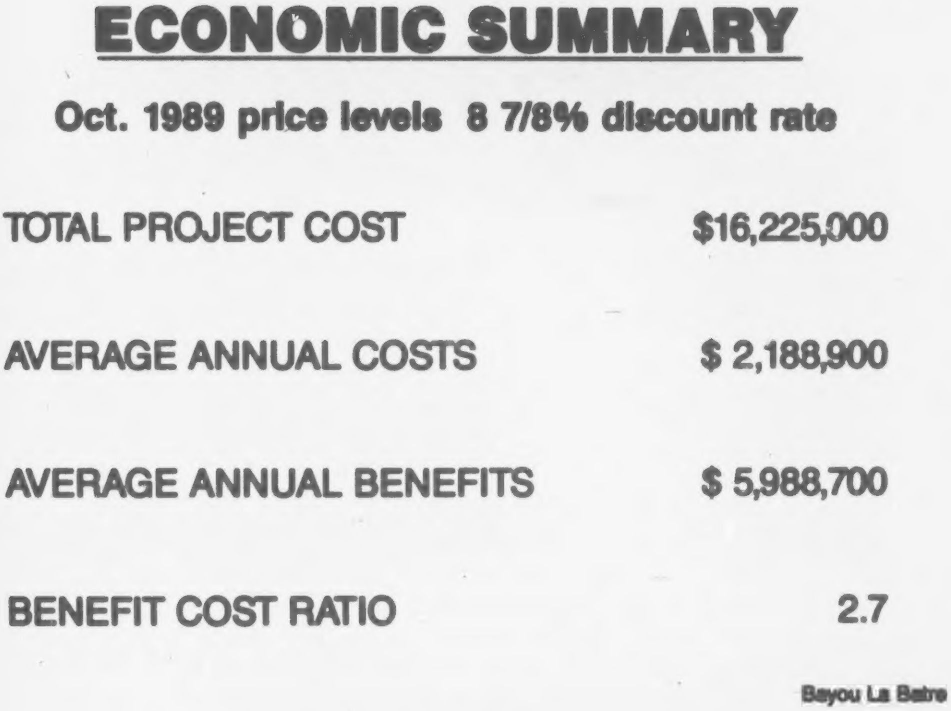
We will shift now to another navigation project in Alabama, Bayou La Batre.

Bayou La Batre is located on the Gulf Coast of Alabama, approximately 30 miles southwest of the City of Mobile, Alabama.

The problems with the existing 12-foot deep channel are depth related causing operational and production inefficiencies for the commercial fishing fleet, shipbuilding industry, and other marine related industries.

The recommended plan would deepen the channel from Pascagoula Ship Channel to the mouth of Bayou La Batre to 18 feet, deepen to 18 feet Bayou La Batre through and including the existing turning basin, with a transition to a 14-foot channel to a point above the highway 188 bridge, and enlarge the side channel up Snake Bayou. The total length of improved channel would be about 23 miles. We are working to insure that all environmental issues are resolved.

The economics of this project are as shown on the slide.



ECONOMIC SUMMARY

Oct. 1989 price levels 8 7/8% discount rate

TOTAL PROJECT COST	$16,225,000
AVERAGE ANNUAL COSTS	$ 2,188,900
AVERAGE ANNUAL BENEFITS	$ 5,988,700
BENEFIT COST RATIO	2.7

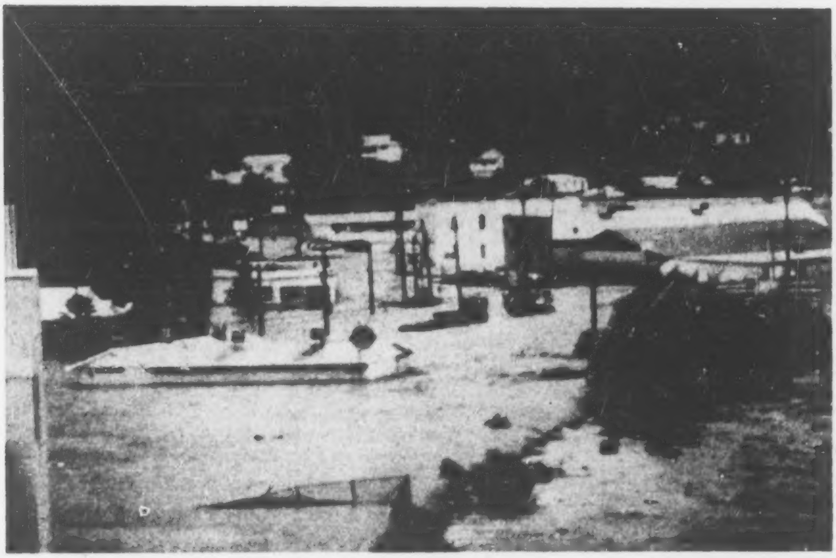
Bayou La Batre

The State of Alabama, Mobile County and the Bayou La Batre Port Authority have indicated a willingness to sponsor the project.

Our next report concerns improvements for flood damage reduction in Clifton, Arizona. The Water Resources Development Act of 1986 authorized a structural improvement at Clifton for which there was no Chief of Engineers report. Completion of the Chief's report demonstrated a need for a project modification including a non-structural element.

Clifton is located in southeastern Arizona, along the San Francisco River.

Throughout history, Clifton has been plagued by severe flooding. The most disastrous flood is the one shown here which occurred in October 1983. Approximately 40 homes were destroyed and 230 suffered major damage. In addition, 41 businesses were destroyed and 57 suffered major damage. In all, flood damages totaled over $20 million.



General **Kelly**. The recommended plan for the north Clifton area consists of evacuating and relocating 108 families from flood plain areas into flood free replacement housing out of the river basin. For the south Clifton area, a levee is proposed to protect against the 125-year frequency flood on the San Francisco River.

The total first cost of the project is $12.51 million, with the rest of the economics as shown.

ECONOMIC SUMMARY

Oct. 1989 price levels 8 7/8% discount rate

TOTAL PROJECT COST	**$12,510,000**
AVERAGE ANNUAL COSTS	**$ 628,000**
AVERAGE ANNUAL BENEFITS	**$ 749,000**
BENEFIT COST RATIO	**1.2**

Clifton

General KELLY. The State of Arizona supports and will sponsor the project.

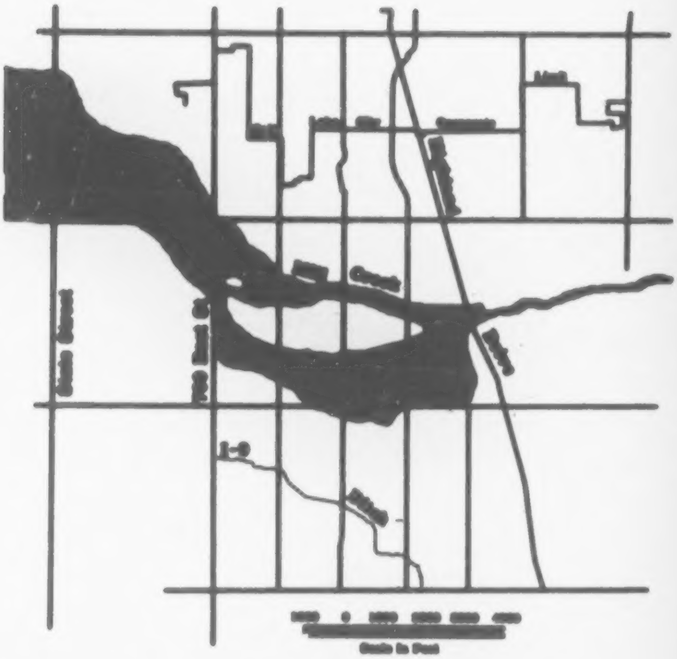
JORDAN RIVER PROJECT, UTAH

This report concerns improvements for flood damage reduction along the Upper Jordan River.

The basin of the Jordan River is located in North Central Utah. Flooding along the Jordan River and tributary streams is most commonly associated with snowmelt, but also from summer thunderstorms, general rainstorms, and a combination of snowmelt and rainfall. This map shows the 100-year floodplain. The most recent flooding occurred in September 1982, June 1983, and June 1984. The average annual damages to existing developments are estimated to be greater than $1.1 million.

Upper Jordan River Utah

Mill Creek
100-Year Frequency
Flood Plain
(1980 Conditions)



General KELLY. Our recommended plan consists of tributary improvements to reduce flooding in Salt Lake County. Mill Creek flood flows would be diverted through a conduit to an enlarged local detention basin for subsequent release into the Big Cottonwood Creek. This plan would provide about 100-year level of protection on Mill Creek above State Street.

The total first cost of the project is about $8 million, and the economics of the project are as shown.

ECONOMIC SUMMARY

Oct. 1989 price levels 8 7/8% discount rate

TOTAL PROJECT COST	$7,900,000
AVERAGE ANNUAL COSTS	$ 700,000
AVERAGE ANNUAL BENEFITS	$ 966,000
BENEFIT COST RATIO	1.4

Upper Jordan River

PROJECTS OF TEXAS—GULF INTERCOASTAL WATERWAY

General KELLY. Salt Lake County, Utah, supports and will sponsor the project.

This report concerns navigation improvements for the Galveston Bay Area, Texas.

Galveston Bay provides access to the principal ports in Houston, Texas City, and Galveston. An interim report recommending enlargement of the Texas City Channel was authorized for construction by the Water Resources Development Act of 1986. Therefore, this report focuses on the feasibility of improving the Houston Ship Channel and Galveston Channel.

The primary navigation problem on both waterways is inadequate channel dimensions, which either restrict the size of ships which can use the ports, or require that ships have to enter light-loaded, thus increasing transportation costs. Restricted loads also increase the number of ships using the channels, thereby increasing delays and hazardous conditions.

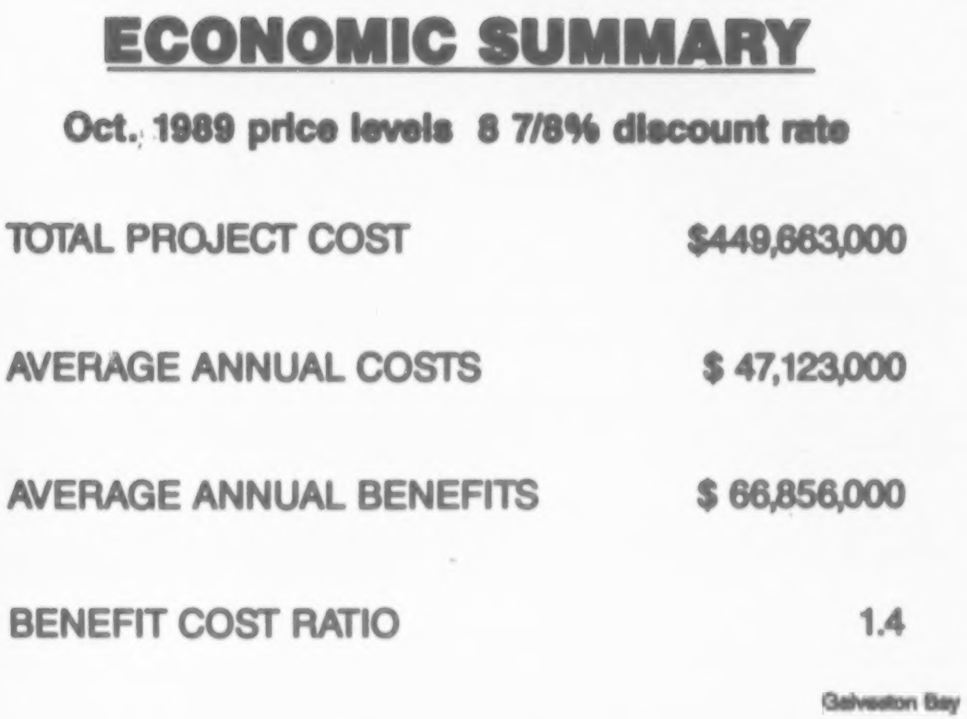
Our report recommends a 50- by 600-foot wide channel from the confluence of the Houston Ship Channel and the Texas City Channel to the vicinity of the Port of Houston. Additional widening is provided to the Clinton Island Turning Basin of the Houston Ship Channel. Improvements for the Galveston Channel would include a 50 by 450 foot channel within the existing channel. The plan also includes shallow draft auxiliary channels on both sides of the Galveston Entrance Channel, and bend easing at the intersection of the Houston Ship Channel and the Gulf Intracoastal Waterway.

Disposal of dredged material will be in accordance with the final chief's report.

This project will be accomplished in two phases with the initial phase being deepening to 45 feet.

As a part of the resource agency review under NEPA, the Fish and Wildlife Service and National Marine Fisheries Service have expressed concerns over the environmental impacts of the project, including the various maintenance dredging options considered, and the mitigation plan. We are currently working with these agencies to resolve their concerns and have extended their time for referral to the President's Council on Environmental Quality.

The total first cost stated in the chief's report for the recommended 50 foot plan is about $500 million. The rest of the economics of this plan are as shown.



ECONOMIC SUMMARY

Oct., 1989 price levels 8 7/8% discount rate

TOTAL PROJECT COST	$449,663,000
AVERAGE ANNUAL COSTS	$ 47,123,000
AVERAGE ANNUAL BENEFITS	$ 66,856,000
BENEFIT COST RATIO	1.4

Galveston Bay

General KELLY. The Port of Houston Authority and the Galveston Wharves will serve as non-Federal sponsors for the project.

This last report concerns the flood damage reduction in the Buffalo Bayou Basin, Metropolitan Area of Houston, Texas.

The Buffalo Bayou Basin is located in Harris County in southeast Texas and encompasses most of the Houston Metropolitan Area with a population of nearly two million.

This slide shows flooding along Brays' Bayou in September 1983. The 1,034 square mile drainage basin is subject to overbank stream flooding, resulting in frequent inundation of urban and suburban properties. A 100-year frequency flood would inundate over 98,000 structures valued at over $9.1 billion.

General KELLY. The report recommends construction of flood damage reduction plans for six tributary bayous. The recommended plan would include channel clearing and enlargement, flood detention basins, and a diversion structure. Neighborhood type recreation plans are recommended on flood control lands in these basins. Vegetative screening and mitigation is also included.

The total first cost of the recommended plan is nearly $540 million. The rest of the economics of the project are as shown.

ECONOMIC SUMMARY

Oct. 1989 price levels 8 7/8% discount rate

TOTAL PROJECT COST	$544,604,000
AVERAGE ANNUAL COSTS	$ 58,329,568
AVERAGE ANNUAL BENEFITS	$217,122,000
BENEFIT COST RATIO	3.7

Buffalo Bayou

General KELLY. Harris County Flood Control District will serve as non-Federal sponsor for the project.

This concludes my statement, Mr. Chairman.

[Maj. Gen. Kelly's prepared statement follows:]

STATEMENT OF
MAJOR GENERAL PATRICK J. KELLY
DIRECTOR OF CIVIL WORKS
US ARMY
CORPS OF ENGINEERS

BEFORE THE

SUBCOMMITTEE ON WATER RESOURCES
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
UNITED STATES HOUSE OF REPRESENTATIVES
MARCH 1, 1990

NOT TO BE RELEASED UNTIL APPROVED BY THE SUBCOMMITTEE
ON WATER RESOURCES
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE, I AM MAJOR GENERAL PATRICK J. KELLY, DIRECTOR OF CIVIL WORKS. WITH ME TODAY IS MR. WILLIAM LOCKWOOD, DEPUTY FOR POLICY, AND MR. HARRY KITCH, ACTING DEPUTY FOR PLANNING, BOTH OF THE POLICY AND PLANNING DIVISION

I WILL BRIEF YOU ON THE 21 WATER RESOURCES PROJECTS RECOMMENDED IN FEASIBILITY REPORTS FOR WHICH WE HAVE A FINAL CHIEF OF ENGINEERS REPORT. I WILL GO THROUGH A SLIDE PRESENTATION ON ALL 21. THE FIRST 5 ARE SUPPORTED BY THE ADMINISTRATION. THE REMAINING 16 PROJECTS ARE THOSE ON WHICH THE ADMINISTRATION HAS NOT COMPLETED ITS REVIEW. THE ADMINISTRATION THEREFORE DOES NOT SUPPORT THEM AT THIS TIME. HOWEVER, WE EXPECT REVIEW OF MANY OF THESE REMAINING PROJECTS TO BE COMPLETED WITHIN THE NEXT FEW WEEKS.

GENERALLY, ALL OF THESE PROJECTS HAVE SATISFIED THE NEPA REQUIREMENTS FOR THE CURRENT REPORT STATUS.ANY OUTSTANDING ISSUES ARE DISCUSSED HEREIN. FOR ALL PROPOSED FLOOD CONTROL PROJECTS, THE AREA TO BE PROTECTED IS PARTICIPATING IN THE FLOOD INSURANCE PROGRAM. ALL EXCEPT THE PLAN RECOMMENDED FOR FORT WAYNE, INDIANA ARE THE NATIONAL ECONOMIC DEVELOPMENT PLAN. ALL PROJECT COSTS ARE AT OCTOBER 1989 PRICE LEVELS, AND A DISCOUNT RATE OF 8 7/8 PERCENT WAS USED FOR ALL ECONOMIC EVALUATIONS.

UNDER MR. PAGE'S LEADERSHIP, WE ARE INSTITUTING A NEW PROGRAM OF LIFE CYCLE PROJECT MANAGEMENT WHICH REQUIRES NEW COST ESTIMATING

PROCEDURES AND PRACTICES. THESE NEW PROCEDURES USE STATE-OF-THE ART PRACTICES TO DEVELOP MORE DETAILED COST ESTIMATES THAN WERE USED AT THE TIME THESE STUDIES WERE UNDERWAY. DURING THE TRANSITION PERIOD, THE NEW PROCEDURES WILL BE USED TO VERIFY THE CURRENT ESTIMATES EARLY IN THE DESIGN PHASE. THEREFORE, THE ECONOMIC EVALUATIONS PRESENTED IN THIS TESTIMONY MAY ACCORDINGLY BE REVISED IN THE NEAR FUTURE. AFTER REVIEW BY THE ADMINISTRATION, WE WILL REPORT ANY SIGNIFICANT CHANGES IMMEDIATELY.

I WILL GIVE YOU A SUMMARY OF EACH PROJECT. DETAILED INFORMATION IS IN THE GREEN BOOKS I HAVE PROVIDED TO THE COMMITTEE. IF YOU HAVE QUESTIONS ON A SPECIFIC PROJECT, PLEASE ASK AS WE DISCUSS THAT PROJECT. I WILL ANSWER QUESTIONS OF A GENERAL NATURE AT THE END OF MY PRESENTATION.

THE FIRST REPORT CONCERNS FLOOD PROTECTION WORKS IN THE PASSAIC RIVER BASIN, NEW JERSEY AND NEW YORK. THE REPORT IS IN PARTIAL RESPONSE TO SECTION 101 OF THE WATER RESOURCES DEVELOPMENT ACT OF 1976, PL 94-587. THE ADMINISTRATION SUPPORTS AUTHORIZATION OF THE PROJECT DEFINED IN THE CHIEF'S REPORT DATED FEBRUARY 3, 1989, AS RECOMMENDED BY THE ASSISTANT SECRETARY OF THE ARMY FOR CIVIL WORKS.

THE PASSAIC RIVER BASIN IS A 935 SQUARE MILE WATERSHED IN NORTHEASTERN NEW JERSEY AND SOUTHEASTERN NEW YORK, WITHIN A 35 MILE RADIUS OF NEW YORK CITY.

THE PASSAIC RIVER HAS A LONG HISTORY OF FLOODING DATING BACK TO THE EARLY 1800'S. THE 1984 FLOOD WAS THE MOST DEVASTATING RECENT FLOOD. THAT FLOOD, WHICH WAS A 25- TO 50-YEAR-FREQUENCY EVENT IN VARIOUS PARTS OF THE BASIN, CLAIMED THREE LIVES AND CAUSED $335 MILLION IN DAMAGES TO ABOUT 6,400 PROPERTIES. APPROXIMATELY 9,400 PEOPLE WERE EVACUATED FROM THEIR HOMES. THE OCTOBER 1903 FLOOD IS THE FLOOD OF RECORD FOR MOST OF THE BASIN. ABOUT $1.8 BILLION IN DAMAGES WOULD RESULT IF A FLOOD COMPARABLE TO THE 1903 EVENT WERE TO REOCCUR.

THE RECOMMENDED PLAN OF PROTECTION FOR THE MAIN STEM PASSAIC RIVER AND TRIBUTARIES, THE DUAL INLET TUNNEL DIVERSION PLAN, CONSISTS OF LARGE DIVERSION TUNNELS, CHANNEL MODIFICATIONS, LEVEES, FLOODWALLS, PRESERVING NATURAL FLOOD STORAGE AREAS AND FISH AND WILDLIFE MITIGATION MEASURES. THESE MEASURES WOULD PROVIDE PROTECTION TO THE BASIN'S MAJOR FLOOD DAMAGE AREAS AGAINST FLOODS RANGING FROM A 100 YEAR TO A 500 YEAR EVENT.

THE TOTAL FIRST COST OF THE PROJECT IS $913,500,000. THE FEDERAL SHARE WOULD BE $674,600,000 AND THE NON-FEDERAL SHARE WOULD BE $238,900,000. AVERAGE ANNUAL COSTS ARE $96,000,000 AND AVERAGE ANNUAL BENEFITS ARE $142,000,000. THE BENEFIT COST RATIO IS 1.5.

THE STATE OF NEW JERSEY THROUGH ITS DEPARTMENT OF ENVIRONMENTAL PROTECTION WILL BE THE NON-FEDERAL SPONSOR FOR THIS PROJECT.

THIS REPORT CONCERNS FLOOD PROTECTION WORKS, IN THE MILL CREEK BASIN, METRO REGION OF NASHVILLE, TENNESSEE. IT IS IN RESPONSE TO RESOLUTIONS ADOPTED IN 1965 BY THE HOUSE PUBLIC WORKS COMMITTEE AND IN 1973 BY THE SENATE COMMITTEE ON PUBLIC WORKS. THE ADMINISTRATION SUPPORTS THE PROJECT DEFINED IN THE CHIEF'S REPORT DATED APRIL 21, 1988, AS RECOMMENDED BY THE ASSISTANT SECRETARY OF THE ARMY FOR CIVIL WORKS.

THE MILL CREEK BASIN LIES PRIMARILY WITHIN DAVIDSON AND WILLIAMSON COUNTIES IN MIDDLE TENNESSEE. THE BASIN IS ABOUT 20 MILES LONG AND AVERAGES 6 MILES IN WIDTH AND RANGES FROM FLAT TO MODERATELY SLOPING ALONG THE MAIN STEM. ROLLING AND HILLY UPLANDS FORM THE WATERSHED DIVIDE.

THE FLOODING PROBLEM EXTENDS ALONG MILL CREEK FOR ABOUT 24 MILES TO NOLENSVILLE AND ALONG ITS PRIMARY TRIBUTARY, SEVENMILE CREEK, FOR ABOUT 3 MILES. OVER $40 MILLION IN FLOOD RELATED DAMAGES RESULTED FROM THE 1979 FLOOD-OF-RECORD. MOST OF THE DAMAGE OCCURED IN THE LOWER, MORE DEVELOPED REACHES OF THE MILL CREEK BASIN.

THE REPORT RECOMMENDS CONSTRUCTION OF TWO UNREGULATED DRY-BED RESERVOIRS, ONE ON MILL CREEK AND ONE ON SEVENMILE CREEK; CHANNEL WIDENING ON SEVENMILE CREEK; EXPANSION OF AN EXISTING FLOOD WARNING SYSTEM; AND ENVIRONMENTAL DESIGN FEATURES, INCLUDING CREATION OF DEEP POOLS AND SELECTED LANDSCAPING ON SEVENMILE CREEK.

TOTAL FIRST COST OF THE PROJECT IS ESTIMATED AT $14,500,000, OF WHICH $7,250,000 WOULD BE NON-FEDERAL. AVERAGE ANNUAL COSTS ARE $1,300,000 AND AVERAGE ANNUAL BENEFITS ARE $2,000,000. THE BENEFIT TO COST RATIO IS 1.5.

THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY HAS AGREED TO ACT AS THE NON-FEDERAL SPONSOR FOR THIS PROJECT.

THIS REPORT CONCERNS IMPROVEMENTS FOR FLOOD CONTROL ALONG THE NOGALES WASH IN DOWNTOWN NOGALES, ARIZONA AND ALONG POTRERO CREEK, A TRIBUTARY TO NOGALES WASH, IN CHULA VISTA, ARIZONA. THIS REPORT IS IN PARTIAL RESPONSE TO SECTION 6 OF THE FLOOD CONTROL ACT OF 1938 (PUBLIC LAW 75-761). THE ADMINISTRATION SUPPORTS THE PROJECT DEFINED IN THE CHIEF'S REPORT DATED FEBRUARY 28, 1989, AS RECOMMENDED BY THE ASSISTANT SECRETARY OF THE ARMY FOR CIVIL WORKS.

NOGALES IS LOCATED IN SOUTH-CENTRAL ARIZONA, RIGHT ON THE BORDER WITH MEXICO. CHULA VISTA IS ADJACENT TO NOGALES.

FLOODING IN DOWNTOWN NOGALES OCCURS WHEN STORMWATER EXCEEDS CAPACITY OF THE INLETS TO THE EXISTING COVERED CHANNELS. IN CHULA VISTA FREQUENT FLOOD DAMAGES OCCUR DUE TO LIMITED CHANNEL CAPACITY. THREE LIVES WERE LOST DURING A FLOOD IN OCTOBER 1977 WHICH AFFECTED OVER 40 HOMES AND CAUSED OVER $1,100,000 IN DAMAGES.

THE RECOMMENDED PLAN FOR DOWNTOWN NOGALES CONSISTS OF COLLECTOR CHANNELS ALONG THE AMERICAN SIDE OF THE US-MEXICO BORDER WHICH WOULD PROVIDE A 33-YEAR LEVEL OF PROTECTION TO DOWNTOWN NOGALES. IN CHULA VISTA CHANNEL IMPROVEMENTS WOULD PROVIDE 100-YEAR PROTECTION TO THE COMMUNITY. THE RECOMMENDED PLAN ALSO INCLUDES A WATERSHED FLOOD WARNING SYSTEM, PORTIONS OF WHICH WOULD BE INSTALLED IN MEXICO. WE WILL WORK THROUGH THE DEPARTMENT OF STATE, IN COOPERATION WITH THE INTERNATIONAL BOUNDRY AND WATER COMMISSION, TO INSTALL AND MAINTAIN THE REQUIRED GAGES IN MEXICO.

THE TOTAL FIRST COST OF THE PROJECT IS $7,300,000. AVERAGE ANNUAL COSTS ARE $678,000 AND AVERAGE ANNUAL BENEFITS ARE $1,370,000. THE RESULTANT BENEFIT-TO-COST RATIO IS 2.1.
THE SANTA CRUZ COUNTY FLOOD CONTROL DISTRICT STRONGLY SUPPORTS AND WILL SPONSOR THE PROJECT.

THIS REPORT CONCERNS IMPROVEMENTS FOR FLOOD CONTROL ALONG THE COYOTE AND BERRYESSA CREEKS IN SANTA CLARA COUNTY, CALIFORNIA. THE REPORT IS IN PARTIAL RESPONSE TO SECTION 4 OF THE FLOOD CONTROL ACT OF 1941 (PUBLIC LAW 77-228). THE ADMINISTRATION SUPPORTS THE PROJECT DEFINED IN THE CHIEF'S REPORT DATED FEBRUARY 7, 1989, AS RECOMMENDED BY THE ASSISTANT SECRETARY OF THE ARMY FOR CIVIL WORKS.

COYOTE AND BERRYESSA CREEKS ARE LOCATED AT THE SOUTHERN TIP OF SAN FRANCISCO BAY.

COYOTE CREEK HAS FREQUENTLY FLOODED NORTHERN SAN JOSE, INCLUDING THE COMMUNITY OF ALVISO, AND SECTIONS OF MILPITAS. INTENSE SPRING STORMS HAVE OCCURRED ON COYOTE CREEK A NUMBER OF TIMES, WITH THE MOST SEVERE FLOODING RESULTING IN 1955, 1958, 1969, 1982 AND 1983. A 100-YEAR FLOOD EVENT WOULD CAUSE FLOOD DAMAGES OF OVER $100 MILLION UNDER TODAYS CONDITIONS. BERRYESSA CREEK IS THE SOURCE OF FLOODING IN RESIDENTIAL NEIGHBORHOODS OF MILPITAS, CALIFORNIA. A 100-YEAR FLOOD ALONG BERRYESSA CREEK WOULD CAUSE AN ESTIMATED $20 MILLION IN DAMAGES.

THE RECOMMENDED PLAN WOULD PROVIDE 100-YEAR FREQUENCY FLOOD PROTECTION FOR BOTH COYOTE AND BERRYESSA CREEKS.

THE PLAN OF IMPROVEMENT FOR COYOTE CREEK CONSISTS OF ABOUT FIVE MILES OF EARTHEN CHANNELS AND OFFSET LEVEES AND INCORPORATES FEATURES TO MITIGATE DAMAGES TO FISH AND WILDLIFE HABITAT.
THE PLAN FOR BERRYESSA CREEK CONSISTS OF ABOUT FOUR MILES OF CONCRETE CHANNEL IMPROVEMENTS AND OFFSET LEVEES IN AN EXISTING GREENBELT PARK ZONE.

THE TOTAL FIRST COST OF THE COYOTE AND BERRYESSA CREEKS PROJECT IS $56,300,000. AVERAGE ANNUAL COSTS ARE $6,700,000 AND AVERAGE ANNUAL BENEFITS ARE $7,281,000. THE BENEFIT COST RATIO IS 1.1.

THE SANTA CLARA VALLEY WATER DISTRICT SUPPORTS AND WILL SPONSOR THE PROJECT.

THIS REPORT CONCERNS THE DEVELOPMENT OF A GREENBELT RECREATION CORRIDOR BETWEEN LEWISVILLE AND RAY ROBERTS LAKES IN LIEU OF THE TRADITIONAL LAKE-TYPE RECREATION FACILITIES CURRENTLY AUTHORIZED FOR DEVELOPMENT AT LEWISVILLE LAKE. IT IS A POST AUTHORIZATION CHANGE REPORT PREPARED PURSUANT TO PROVISIONS REGARDING CHANGES TO UNCOMPLETED AUTHORIZED PROJECTS, AND WAS UNDERTAKEN AT THE REQUEST OF THE NON-FEDERAL INTERESTS IN THE AREA.

THE RAY ROBERTS AND LEWISVILLE LAKES LIE WITHIN THE DALLAS, DENTON, FORT WORTH METROPOLITAN AREA IN NORTH CENTRAL TEXAS.

THIS RAPIDLY URBANIZING AREA HAS A NEED FOR STREAM ORIENTED OPEN-SPACE RECREATION AREAS. THE TEXAS OUTDOOR RECREATION PLAN IDENTIFIES THREE STREAM ORIENTED OR LINEAR RECREATION ACTIVITIES (CANOEING, STREAM FISHING, AND HORSEBACK RIDING) AS THE HIGHEST PRIORITIES WITHIN THE REGION. OPPORTUNITIES TO MEET STREAM ORIENTED RECREATION DEMANDS ARE CREATED BY THE CONSTRUCTION OF THE TWO LAKE SYSTEM OPERATING IN TANDEM.

THE REPORT RECOMMENDS ACQUISITION AND MANAGEMENT OF 660 ACRES IN FEE, 440 ACRES CONVERTED FROM FLOWAGE EASEMENT TO FEE, AND 500 ACRES IN CONSERVATION EASEMENT ALONG THE 14 RIVER MILE STRETCH OF THE ELM FORK OF THE TRINITY RIVER BETWEEN RAY ROBERTS DAM AND LEWISVILLE LAKE FOR RECREATION PURPOSES. THIS ACQUISITION AND DEVELOPMENT WOULD BE IN LIEU OF TRADITIONAL RECREATION FACILITIES AT LEWISVILLE LAKE AS PROVIDED IN THE PROJECT AUTHORIZATION.

THE TOTAL FIRST COST OF THE RECOMMENDED PLAN IS $4,620,000. THE AVERAGE ANNUAL BENEFITS ARE $1,718,000 AND THE AVERAGE ANNUAL COSTS ARE $554,000, AND THE BENEFIT-COST RATIO IS 3.1.

THE CITIES OF DALLAS AND DENTON, AND THE TEXAS PARKS AND WILDLIFE DEPARTMENT WILL SERVE AS NON-FEDERAL SPONSORS FOR THE PROJECT.

THAT CONCLUDES MY DISCUSSION OF PROJECTS WHICH HAVE THE ENDORSEMENT OF THE EXECUTIVE BRANCH. THE FOLLOWING PROJECTS HAVE BEEN RECOMMENDED BY THE CHIEF OF ENGINEERS AND ARE BEING REVIEWED BY THE SECRETARY CONSISTENT WITH EXECUTIVE BRANCH REQUIREMENTS. THIS REVIEW EXAMINES BOTH THE TECHNICAL AND POLICY ASPECTS OF THESE PROJECTS. AS SUCH, THE FOLLOWING TESTIMONY SHOULD NOT BE CONSTRUED AS AN ENDORSEMENT OF THE SUITABILITY OF THESE PROJECTS FOR AUTHORIZATION.

THIS REPORT CONCERNS FLOOD CONTROL AND ALLIED PURPOSES FOR RIVER DES PERES, MISSOURI. THE STUDY WAS AUTHORIZED BY HOUSE PUBLIC WORKS COMMITTEE RESOLUTIONS IN 1971 AND 1972, AND SENATE PUBLIC WORKS COMMITTEE RESOLUTIONS IN 1966, 1970 AND 1972.

THE STUDY AREA CONSISTS OF 111 SQUARE MILES LOCATED IN WEST CENTRAL ST. LOUIS COUNTY AND ST. LOUIS CITY, MISSOURI.

THE PRINCIPAL FLOOD PROBLEMS OCCUR WITHIN THE DEER CREEK AND THE UNIVERSITY CITY BRANCH OF UPPER AND LOWER RIVER DES PERES. THE FLOODING IS CAUSED BY INTENSE RAINFALL AND BY MISSISSIPPI RIVER BACKWATER IN LOWER RIVER DES PERES. STREAMBANK EROSION IS ALSO A PROBLEM DUE TO THE HIGHLY ERODIBLE NATURE OF THE SOILS AND THE CLOSE PROXIMITY OF DEVELOPMENT TO THE STREAMBANKS.

THE RECOMMENDED PLAN CONSISTS OF IMPROVEMENTS ALONG BOTH UNIVERSITY CITY BRANCH AND DEER CREEK AND A FLOOD WARNING AND FORECASTING SYSTEM. CHANNEL IMPROVEMETS ARE PROPOSED ON UNIVERSITY CITY BRANCH, WITH A TRAIL ALONG THE CHANNEL AND A PARK. THE DEER CREEK CHANNEL WOULD BE IMPROVED AND A TRAIL ADDED ALONG THE CREEK.

TOTAL FIRST COST IS ESTIMATED AT $20,550,000. AVERAGE ANNUAL COSTS ARE $1,967,000 AND AVERAGE ANNUAL BENEFITS ARE $2,676,000. THE BENEFIT -COST RATIO IS 1.4.

THE METROPOLITAN ST. LOUIS SEWER DISTRICT, WILL SUPPORT THE PROJECT AND PROVIDE THE LOCAL COOPERATION.

THIS REPORT CONCERNS FLOOD CONTROL AND ALLIED PURPOSES FOR COLDWATER CREEK,MISSOURI. THE STUDY WAS AUTHORIZED BY HOUSE PUBLIC WORKS COMMITTEE RESOLUTIONS IN 1971 AND 1972, AND SENATE PUBLIC WORKS COMMITTEE RESOLUTIONS IN 1966, 1970 AND 1972.

COLDWATER CREEK IS LOCATED IN THE NORTHERN PART OF HIGHLY URBAN ST. LOUIS COUNTY, ABOUT SIX MILES NORTH AND WEST OF THE CITY OF ST. LOUIS.

THE MOST SEVERE FLOODING OCCURS ALONG THE MAIN CHANNEL OF THE CREEK AS A RESULT OF INTENSE RAINFALL WITHIN THE DRAINAGE BASIN. STREAMBANK EROSION IS ALSO A PROBLEM AT MANY LOCATIONS ALONG COLDWATER CREEK AND THERE ARE PARTICULAR UNMET NEEDS FOR RECREATION FACILITIES IN THE AFFECTED AREA.

THERE ARE TWO RADIOACTIVE MATERIAL STORAGE SITES ADJACENT TO THE CREEK. THE DEPARTMENT OF ENERGY HAS A REMEDIAL ACTION PROGRAM IN PLACE TO CLEANUP AND REMOVE SUCH MATERIALS THAT HAVE WORKED INTO THE CREEK AND TO CREATE SAFE, PERMANENT STORAGE FACILITIES. THE CHIEF OF ENGINEERS RECOMMENDED THAT CONSTRUCTION OF THE PROPOSED PLAN FOR THE LOWER COLDWATER CREEK NOT COMMENCE UNTIL THERE IS REASONABLE ASSURANCE FROM THE DEPARTMENT OF ENERGY THAT CHANNEL EXCAVATION AND OTHER WORK IN REACHES OF COLDWATER CREEK SUSPECTED OF RADIOACTIVE CONTAMINATION WILL NOT PRESENT A HEALTH HAZARD TO CONSTRUCTION WORKERS AND SUBSEQUENTLY TO THE LOCAL POPULACE.

THE RECOMMENDED PLAN INCLUDES WIDENING 10 MILES OF THE MAIN CHANNEL OF COLDWATER CREEK, ENLARGING THE OPENING THROUGH A DOWNSTREAM RAILROAD EMBANKMENT, TWO SMALL LEVEES, A FLOOD FORECASTING AND WARNING SYSTEM, A RECREATION TRAIL ALONG MOST SEGMENTS WHERE THE CHANNEL IS WIDENED, AND TWO PICNIC AREAS.

THE TOTAL FIRST COST OF THE RECOMMENDED PLAN IS $22,380,000. THE AVERAGE ANNUAL BENEFITS ARE $3,185,000 AND THE AVERAGE ANNUAL COSTS ARE $2,031,000. THE BENEFIT-COST RATIO IS 1.6.

MONITORING OF RADIOACTIVITY DURING CONSTRUCTION, IF NECESSARY, IS INCLUDED IN THE PROJECT AT 100 PERCENT FEDERAL COST. THIS SPECIAL COST SHARING IS UNDER CONSIDERATION SINCE ANY RESIDUAL OF RADIOACTIVE MATERIAL WOULD BE THE RESULT OF A FEDERALLY SPONSORED PROGRAM.

THE METROPOLITAN ST. LOUIS SEWER DISTRICT HAS STATED ITS WILLINGNESS TO PROVIDE THE REQUIREMENTS OF LOCAL COOPERATION.

THIS REPORT CONCERNS THE BRUSH CREEK FLOOD CONTROL PROJECT IN KANSAS CITY, MISSOURI. THE PROJECT WAS AUTHORIZED IN THE WATER RESOURCES DEVELOPMENT ACT OF 1986 AT A MAXIMUM COST OF $21,600,000. HOWEVER, AUTHORIZATION FOR AN INCREASED PROJECT COST IS REQUIRED BY THE PROJECT COST LIMIT PROVISIONS OF SECTION 902 OF THE 1986 ACT.

THE AUTHORIZED PROJECT IS ALONG BRUSH CREEK, A TRIBUTARY OF THE BLUE RIVER IN KANSAS CITY, MISSOURI.

THE RECORD FLOOD OF SEPTEMBER 1977 CAUSED THE LOSS OF 12 LIVES AND OVER $66 MILLION IN ECONOMIC LOSSES.

THE PROJECT EXTENDS FROM JUST DOWNSTREAM OF ROANOKE PARKWAY FOR A

DISTANCE OF APPROXIMATELY 7,500 FEET DOWNSTREAM TO A POINT JUST BELOW TROOST AVENUE. THE PROJECT WILL DEEPEN THE EXISTING CHANNEL BY AN AVERAGE OF FIVE FEET AND REPLACE THE EXISTING CONDUIT BETWEEN OAK AND LOCUST STREETS WITH AN OPEN CHANNEL.

IN ADDITION, THE WATER RESOURCES DEVELOPMENT ACT OF 1988 AUTHORIZES THE FEDERAL DESIGN AND CONSTRUCTION, AT LOCAL EXPENSE, OF UPSTREAM AND DOWNSTREAM NON-FEDERAL EXTENSIONS TO THE PROJECT. THE CORPS OF ENGINEERS INTENDS TO DESIGN ALL COMPONENTS OF WORK AS A UNIT TO ENSURE COMPATIBILITY AND OPTIMIZATION.

DURING PRECONSTRUCTION ENGINEERING AND DESIGN, EXTENSIVE HYDRAULIC MODEL STUDIES INDICATED THAT TWO ADDITIONAL BRIDGES WOULD HAVE TO BE REPLACED IN ADDITION TO THOSE TO BE REPLACED OR REMOVED IN THE AUTHORIZED PROJECT. FURTHER GEOLOGICAL INVESTIGATIONS INDICATE THAT THE CHANNEL BOTTOM AND WALLS WOULD HAVE TO BE LINED WITH CONCRETE TO RESIST ANTICIPATED WATER VELOCITIES.

AS A RESULT OF THE REQUIRED DESIGN CHANGES, THE ESTIMATED PROJECT COST INCREASED TO $26,300,000 FOR THE FEDERAL PROJECT ONLY. BECAUSE SECTION 902 OF THE WATER RESOURCES DEVELOPMENT ACT OF 1986 LIMITS THE COST OF THIS PROJECT TO $21,600,000, AUTHORIZATION IS NEEDED TO ALLOW FOR CONSTRUCTION OF THE MODIFIED PROJECT AT THIS HIGHER COST. THE ESTIMATED FEDERAL COST IS $16,700,000 AND THE ESTIMATED NON-FEDERAL COST IS $9,600,000. THE AVERAGE ANNUAL COSTS ARE $2,445,100 AND BENEFITS ARE $2,812,200. THE BENEFIT-COST RATIO IS 1.15.

THE NON-FEDERAL SPONSOR, KANSAS CITY, MISSOURI, IS WILLING TO PROVIDE THE REQUIRED LOCAL REQUIREMENTS AND PAY FOR THE NON-FEDERAL PORTIONS OF THE PROJECT.

THIS REPORT ADDRESSES THE FEASIBILITY OF MODIFYING THE EXISTING FEDERAL NAVIGATION CHANNELS IN BOSTON HARBOR, MASSACHUSETTS. THE REPORT WAS PREPARED IN RESPONSE TO SENATE PUBLIC WORKS COMMITTEE RESOLUTIONS ADOPTED MARCH 1, 1968 AND SEPTEMBER 11, 1969.

THE PORT OF BOSTON IS LOCATED ON THE EASTERN COAST OF MASSACHUSETTS BAY.

WHILE THE PORT'S PRINCIPAL ENTRANCE AND MAIN ACCESS CHANNELS ARE 40 FEET DEEP, THE THREE MAJOR TRIBUTARIES, ALONG WHICH THE MAJORITY OF PORT TERMINALS ARE LOCATED, ARE ONLY 35 FEET DEEP. THE RESULTING TIDAL DELAYS AND LIMITS ON VESSEL SIZE AND LOADING PLACE SIGNIFICANT RESTRICTIONS ON SHIPPERS. THIS CAUSES HIGHER TRANSPORTATION COSTS AND OPERATING INEFFICIENCIES, AS SMALLER AND/OR LIGHTLY LOADED VESSELS MUST BE USED.

THE RECOMMENDED PROJECT CONSISTS ESSENTIALLY OF DEEPENING THE RESERVED CHANNEL TO 40 FEET FOR MOST OF ITS LENGTH AND WIDENING THE AREA AT ITS CONFLUENCE WITH THE MAIN SHIP CHANNEL; DEEPENING THE EXISTING MYSTIC RIVER CHANNEL TO 40 FEET EXCEPT FOR AN AREA AT THE

UPSTREAM LIMIT; WIDENING AND DEEPENING THE INNER CONFLUENCE AREA TO 40 FEET; DEEPENING THE EXISTING CHELSEA RIVER CHANNEL TO 38 FEET; AND REMARKING OF THE PRESIDENT ROADS SHIP CHANNEL RESULTING IN A 20 PERCENT ENLARGEMENT OF THE DEEPWATER ANCHORAGE TO ABOUT 420 ACRES. THIS REPORT IS STILL WITH THE CORPS OF ENGINEERS PENDING COMPLETION OF TESTING OF DREDGED MATERIAL TO DETERMINE ITS SUITABILITY FOR OCEAN DISPOSAL.

THE FIRST COST OF THE PROPOSED IMPROVEMENT IS ESTIMATED TO BE $26,200,000. AVERAGE ANNUAL COSTS ARE ESTIMATED AT $2,617,000 AND AVERAGE ANNUAL BENEFITS ARE $4,035,000, WHICH YIELDS A BENEFIT-COST RATIO OF 1.5.

THE MASSACHUSETTS PORT AUTHORITY HAS INDICATED ITS WILLINGNESS AND CAPABILITY TO ACT AS PROJECT SPONSOR.

THIS REPORT CONCERNS FLOOD PROTECTION WORKS FOR THE ECORSE CREEK DRAINAGE BASIN LOCATED IN SOUTHEASTERN MICHIGAN. THIS REPORT IS AN INTERIM FEASIBILITY REPORT PREPARED IN PARTIAL RESPONSE TO THE FLOOD CONTROL ACT OF 1965 AND THE RIVER AND HARBOR ACT OF 1966.

THE ECORSE CREEK DRAINAGE BASIN, JUST SOUTH OF THE CITY OF DETROIT, IS WITHIN WAYNE COUNTY, MICHIGAN. THE PRIMARY TRIBUTARIES INCLUDE NORTH BRANCH ECORSE CREEK AND SEXTON-KILFOIL DRAIN.

FLOODING PROBLEMS ARE CAUSED BY THE SEVERELY LIMITED HYDRAULIC CAPACITY OF THE NORTH BRANCH ECORSE CREEK AND SEXTON-KILFOIL

DRAIN. THIS RESULTS IN OVERBANK FLOODING WHEN A STORM OF APPROXIMATELY ONE-YEAR FREQUENCY OCCURS.

THE RECOMMENDED PLAN WOULD PROVIDE PROTECTION AGAINST THE TWO TO SEVEN YEAR FLOOD EVENT, BY CONSTRUCTION OF A STORMWATER RETENTION BASIN. THE RETENTION BASIN, OFFLINE OF THE NORTH BRANCH ECORSE CREEK, WOULD COLLECT AND STORE FLOODWATERS IN EXCESS OF THE CREEK'S BANKFUL CAPACITIES.

TOTAL FIRST COST OF THE PROJECT IS ESTIMATED AT $7,280,000, OF WHICH $2,720,000 WOULD BE NON-FEDERAL. THE AVERAGE ANNUAL BENEFITS ARE $995,200 AND THE AVERAGE ANNUAL COSTS ARE $755,900. THE BENEFIT COST RATIO IS 1.3.

WAYNE COUNTY HAS EXPRESSED ITS WILLINGNESS TO ACT AS THE PROJECT SPONSOR.

THIS REPORT CONCERNS FLOOD PROTECTION WORKS FOR THE CITY OF FORT WAYNE, INDIANA. IT IS IN RESPONSE TO A RESOLUTION ADOPTED IN 1972 BY THE HOUSE COMMITTEE ON PUBLIC WORKS.

IN THE CITY OF FORT WAYNE, IN ALLEN COUNTY INDIANA, THE ST. JOSEPH AND ST. MARYS RIVERS JOIN TO FORM THE HEADWATERS OF THE MAUMEE RIVER

GENERAL FLOODING OCCURS IN THE FORT WAYNE AREA AS A RESULT OF HIGH FLOWS IN EITHER THE ST. JOSEPH OR ST MARYS RIVERS. MAJOR FLOODS OCCUR WHEN HIGH FLOWS ARE EXPERIENCED IN BOTH RIVERS AT THE SAME

TIME. THE COMMUNITY IS SUBJECT TO SEVERE RESIDENTIAL AND COMMERCIAL DAMAGE FROM RECURRING FLOODS. SIGNIFICANT HISTORICAL FLOODING OCCURRED IN 1913, 1982 AND AGAIN IN 1985.

THE RECOMMENDED PLAN PROVIDES FOR UPGRADING LEVEES, FLOODWALLS AND STEEL SHEET PILE CRIBS ALONG THE TRIBUTARIES. A NEW PUMPING STATION, BACKWATER GATES AND SEVERAL STORM SEWER MODIFICATIONS ARE REQUIRED. ROAD CLOSURE STRUCTURES AND ROAD ALTERATIONS ARE NECESSARY. THE PROJECT WOULD PROVIDE A 100-YEAR LEVEL OF PROTECTION.

THE RECOMMENDED PLAN IS NOT THE NED PLAN. THE ONLY DIFFERENCE BETWEEN THE NED PLAN AND THE RECOMMENDED PLAN IS THAT THE NED PLAN PROVIDES A 200-YEAR LEVEL OF PROTECTION AND THE RECOMMENDED PLAN PROVIDES 100-YEAR LEVEL OF PROTECTION. THE RECOMMENDED PLAN WAS CHOOSEN AT THE REQUEST OF THE LOCAL SPONSORS WHO FEEL IT BETTER MEETS THEIR LONG TERM PLANS.

PROJECT COST IS ESTIMATED AT $16,300,000, OF WHICH $4,200,000 WOULD BE PROVIDED BY THE NON-FEDERAL SPONSORS. AVERAGE ANNUAL COSTS ARE $1,655,000 AND THE AVERAGE ANNUAL BENEFITS ARE $4,503,000. THIS RESULTS IN A BENEFIT-TO-COST RATIO OF 2.7.

THE CITY OF FORT WAYNE AND ALLEN COUNTY ARE THE NON-FEDERAL SPONSORS FOR THE PROJECT.

THIS REPORT CONCERNS THE COMMERCIAL NAVIGATION ASPECTS OF THE GREAT LAKES CONNECTING CHANNELS AND HARBORS. IT IS AN INTERIM FEASIBILITY STUDY PREPARED IN RESPONSE TO TWO RESOLUTIONS ADOPTED BY THE SENATE COMMITTEE ON PUBLIC WORKS IN 1969 AND 1976.

THE GREAT LAKES CONNECTING CHANNELS AND HARBORS STUDY AREA INCLUDED THE WATERWAYS BETWEEN LAKES SUPERIOR AND HURON, LAKES HURON AND MICHIGAN, AND LAKES HURON AND ERIE, WHICH PROVIDE DEEP-DRAFT COMMERCIAL NAVIGATION BETWEEN THE UPPER FOUR GREAT LAKES AND THE DEEP-DRAFT HARBORS UPSTREAM OF THE WELLAND CANAL.

THE PROBLEMS AND OPPORTUNITIES IDENTIFIED WITHIN THE STUDY AREA INCLUDED THE NEED TO MAXIMIZE EFFICIENT USE OF THE SYSTEM BY IMPROVED SERVICE TO CLASS 10 VESSELS AT RECEIVING HARBORS AND TO OPTIMIZE UTILIZATION OF EXISTING VESSELS ON TRANSITS FROM LAKE SUPERIOR HARBORS TO THE LOWER LAKES TO TAKE ADVANTAGE OF LONG TERM MEAN LAKE LEVELS.

THE RECOMMENDED PLAN PROVIDES FOR DEEPENING ALONG THE UPPER ST. MARYS RIVER AND CHANNELS AT DULUTH HARBOR.

PORTIONS OF THE ST. MARYS RIVER WILL BE DEEPENED TO PROVIDE A MAXIMUM SAFE DRAFT OF 26-1/2 FEET. DISPOSAL OF THE DREDGED MATERIALS WILL BE DEPOSITED IN IZAAK WALTON BAY TO FORM A HABITAT ISLAND FOR THE ENDANGERED PIPING PLOVER. THE STATE OF MICHIGAN HAS STATED ITS INTENT TO ACT AS THE LOCAL SPONSOR FOR THE UPPER ST. MARYS RIVER PORTION OF THE PROJECT.

THE ENTRANCE AND LOWER CHANNELS AT THE DULUTH PORTION OF THE DULUTH-SUPERIOR HARBOR WILL BE DEEPENED TO ALLOW 26 1/2 FOOT SAFE DRAFT. DISPOSAL OF THE DREDGED MATERIALS FROM DULUTH HARBOR WILL BE PLACED IN AN UPLAND SITE. THE CITY OF DULUTH HAS EXPRESSED ITS WILLINGNESS TO BE THE LOCAL SPONSOR FOR THE DULUTH HARBOR PORTION.

THE TOTAL FIRST COST OF THE PROJECT IS $7,489,100. THE FEDERAL SHARE WOULD BE $5,037,500 AND THE NON-FEDERAL SHARE WOULD BE $2,451,600. THE AVERAGE ANNUAL BENEFITS ARE $17,500,000 AND THE AVERAGE ANNUAL COSTS ARE $748,000. THE BENEFIT-TO-COST RATIO IS 23.

THIS REPORT CONCERNS STORM DAMAGE REDUCTION IMPROVEMENTS AT MARTIN COUNTY, FLORIDA. IT WAS PREPARED IN RESPONSE TO A SENATE PUBLIC WORKS COMMITTEE RESOLUTION DATED 18 MAY 1973.

THE PROJECT AREA ENCOMPASSES THE 22 MILES OF OCEAN SHOREFRONT OF MARTIN COUNTY WHICH IS LOCATED ABOUT 225 MILES SOUTH OF JACKSONVILLE.

THE PROJECT AREA HAS EXPERIENCED EROSION AND SHORELINE RECESSION SINCE AT LEAST 1882. NORTHEASTERS, AND ESPECIALLY THE THANKSGIVING DAY STORM OF 1984, HAVE CAUSED SIGNIFICANT EROSION OF THE DUNE, WHICH HAS LEFT THE SHOREFRONT SUSCEPTIBLE TO DAMAGE FROM FREQUENT STORMS.

THE RECOMMENDED PLAN CONSISTS OF RESTORATION OF ABOUT 4 MILES OF THE PRIMARY DUNE SYSTEM TO AN ELEVATION OF 12.5 FEET ABOVE MEAN-SEA-LEVEL WITH A TOP WIDTH OF 20 FEET. A BEACH WITH A 35-FOOT-WIDE BERM AT ELEVATION 8 FEET WOULD PROTECT THE DUNE SYSTEM DURING LESS THAN DESIGN STORM CONDITIONS. PERIODIC NOURISHMENT WOULD BE PROVIDED AS NEEDED.

THE ESTIMATED TOTAL FIRST COST OF THE PROJECT IS $9,493,000. THE FEDERAL SHARE WOULD BE $3,876,000 AND THE NON-FEDERAL SHARE WOULD BE $5,617,000. AVERAGE ANNUAL COSTS ARE $1,322,400 AND BENEFITS ARE $1,988,700. THE BENEFIT-COST RATIO IS 1.5.

THE MARTIN COUNTY BOARD OF COMMISSIONERS WILL BE THE SPONSOR FOR THIS PROJECT.

THIS REPORT CONCERNS STORM DAMAGE REDUCTION IMPROVEMENTS AT MYRTLE BEACH, SOUTH CAROLINA. IT WAS PREPARED IN RESPONSE TO HOUSE PUBLIC WORKS COMMITTEE RESOLUTION ADOPTED 17 NOVEMBER 1981.

THE PROJECT AREA EXTENDS FROM LITTLE RIVER INLET AT THE NORTH CAROLINA/SOUTH CAROLINA STATE LINE SOUTHERLY TO THE VICINITY OF MURRELLS INLET.

THE DAMAGE POTENTIAL OF THE STUDY AREA HAS RECENTLY BEEN DEMONSTRATED AS A RESULT OF THE WINTER STORMS OF 1986/1987 AND HURRICANE HUGO IN 1989. THE STORM OF 1ST AND 2ND DECEMBER 1986

CAUSED AN ESTIMATED $2.0 MILLION IN STRUCTURAL DAMAGE. THE JANUARY 1, 1987 NORTHEASTER CAUSED DAMAGES OF $13.3 MILLION. HURRICANE HUGO, WHICH OCCURRED ON 21 SEPTEMBER 1989, CAUSED AN ESTIMATED $940,000,000 DAMAGE IN HORRY COUNTY. BASED ON WITHOUT PROJECT CONDITIONS AND HISTORICAL SHORELINE EROSION RATES, THE AVERAGE ANNUAL EQUIVALENT DAMAGE TO 1,400 STRUCTURES IS ESTIMATED TO BE $21,549,000.

THE RECOMMENDED PLAN CONSISTS OF THE PLACEMENT OF A PROTECTIVE BEACH IN THREE SEPARABLE AREAS DESIGNED TO PROVIDE PROTECTION FROM A 5-YEAR STORM SURGE. COLLECTIVELY, THE PLAN WOULD PLACE ABOUT 5 MILLION CUBIC YARDS OF SAND OVER A TOTAL PROJECT REACH OF 22.6 MILES.

THE ESTIMATED TOTAL FIRST COST OF THE PROJECT IS $59,727,000. THE FEDERAL SHARE WOULD BE $38,822,000 AND THE NON-FEDERAL SHARE WOULD BE $20,905,000. AVERAGE ANNUAL COSTS ARE $6,591,000 AND BENEFITS ARE $22,599,000. THE BENEFIT-COST RATIO IS 3.4.

THE CITY OF NORTH MYRTLE BEACH, THE CITY OF MYRTLE BEACH, THE CITY OF SURFSIDE BEACH, THE CITY OF ATLANTIC BEACH, AND GARDEN CITY HAVE INDICATED THEIR INTENT TO ACT AS SPONSORS FOR THIS PROJECT.

THIS REPORT CONCERNS COMMERCIAL NAVIGATION IMPROVEMENTS AT MIAMI HARBOR, FLORIDA. IT WAS PREPARED IN RESPONSE TO A HOUSE PUBLIC WORKS COMMITTEE RESOLUTION DATED 18 NOVEMBER 1980.

MIAMI HARBOR IS IN THE NORTHERN PART OF BISCAYNE BAY, ON THE SOUTHEAST COAST OF FLORIDA. THE CITY OF MIAMI IS ON THE WEST SIDE OF THE BISCAYNE BAY, AND THE CITY OF MIAMI BEACH IS ON A PENINSULA ON THE NORTHEAST SIDE OF THE BAY, OPPOSITE MIAMI. CURRENT PROBLEMS INVOLVE DIFFICULTIES IN VESSEL HANDLING IN THE ENTRANCE CHANNEL, THE TURN FROM THE MAIN CHANNEL INTO THE SOUTH CHANNEL, AND TURNING IN THE LUMMUS/DODGE ISLAND TURNING BASIN.

THE RECOMMENDED PLAN WOULD PROVIDE ADDITIONAL WIDTH IN THE DOGLEG TURN OF THE BAR CUT; DEEPEN THE OUTER CHANNEL TO 44 FEET; DEEPEN THE INTERIOR CHANNELS TO 42 FEET; DEEPEN TO 42 FEET AND ENLARGE THE LUMMUS/DODGE ISLAND TURNING BASIN; AND WIDEN GOVERNMENT CUT. WE ARE WORKING TO INSURE THAT ALL ENVIRONMENTAL CONCERNS ARE RESOLVED.

THE ESTIMATED TOTAL FIRST COST OF THE PROJECT IS $65,695,000. THE FEDERAL SHARE WOULD BE $41,919,000 AND THE NON-FEDERAL SHARE WOULD BE $23,776,000. AVERAGE ANNUAL COSTS ARE $6,525,000 AND BENEFITS ARE $9,479,000. THE RESULTANT BENEFIT-COST RATIO IS 1.5.

DADE COUNTY, FLORIDA THROUGH THE PORT OF MIAMI HAS AGREED TO ACT AS THE PROJECT SPONSOR.

THIS REPORT CONCERNS THE FLOOD PROTECTION WORKS, ALONG RIO DE LA PLATA IN THE MUNICIPALITIES OF DORADO, TOA BAJA, AND TOA ALTA, PUERTO RICO. IT IS IN RESPONSE TO A RESOLUTION ADOPTED IN MAY 5, 1966 BY THE HOUSE PUBLIC WORKS COMMITTEE.

THE RIO DE LA PLATA BASIN IS IN THE NORTH-CENTRAL REGION OF THE ISLAND. IT DRAINS ABOUT 240 SQUARE MILES. ITS MOUTH IS ABOUT 11 MILES WEST OF SAN JUAN.

FLOODING IN THE PROJECT AREA HAS AFFECTED SOME 12,000 FAMILIES, 300 INDUSTRIAL AND COMMERCIAL ESTABLISHMENTS, STREETS AND ROADS AND NUMEROUS PUBLIC BUILDINGS AND FACILITIES. THE WHOLE TOWN OF TOA BAJA, AND PORTIONS OF THE TOWNS OF DORADO, INGENIO, TOA VILLE AND CAMPANILLAS ARE SUBJECT TO FREQUENT FLOODING. QUANTIFIABLE AVERAGE ANNUAL DAMAGES ARE ESTIMATED AT $7.5 MILLION.

THE RECOMMENDED PLAN, PROVIDES 150-YEAR LEVEL OF PROTECTION FOR THE DOWNSTREAM PORTIONS OF THE BASIN, AND PROVIDES 100-YEAR INCIDENTAL LEVEL OF PROTECTION FOR THE TOA ALTA/SAN JOSE AREAS. THE PLAN CONSISTS OF LEVEES ON BOTH BANKS. THIS PLAN ALSO PROPOSES WIDENING AND STRAIGHTENING ABOUT 14 KMS.OF THE MAIN RIVER CHANNEL. INTERIOR DRAINAGE INCLUDES SEVERAL PONDING AREAS, SIX FLAP GATE CULVERTS AND A PUMP STATION.

TOTAL FIRST COST OF THE PROJECT IS ESTIMATED AT $56,985,000 OF WHICH $22,205,000 WOULD BE NON-FEDERAL. AVERAGE ANNUAL COSTS ARE $6,113,000 AND AVERAGE ANNUAL BENEFITS ARE $10,205,000. THE BENEFIT TO COST RATIO IS 1.7.

THE PUERTO RICO DEPARTMENT OF NATURAL RESOURCES HAS AGREED TO ACT AS THE NON-FEDERAL SPONSOR FOR THIS PROJECT.

THIS REPORT CONCERNS COMMERCIAL NAVIGATION IMPROVEMENTS AT BAYOU LA BATRE, ALABAMA. IT WAS PREPARED IN RESPONSE TO A HOUSE PUBLIC WORKS AND TRANSPORTATION COMMITTEE RESOLUTION DATED 10 OCTOBER 1974.

BAYOU LA BATRE IS LOCATED IN SOUTH MOBILE COUNTY, APPROXIMATELY 30 MILES SOUTHWEST OF THE CITY OF MOBILE, ALABAMA.

THE PROBLEMS WITH THE EXISTING 12-FOOT DEEP CHANNEL ARE DEPTH-RELATED OPERATIONAL AND PRODUCTION INEFFICIENCIES FOR THE COMMERCIAL FISHING FLEET, SHIPBUILDING INDUSTRY, AND OTHER MARINE RELATED INDUSTRIES.

THE RECOMMENDED PLAN PROVIDES FOR: (A) AN 18-FOOT CHANNEL FROM PASCAGOULA SHIP CHANNEL EAST ALONG THE GULF INTRACOASTAL WATERWAY AND THEN NORTH TO THE MOUTH OF BAYOU LA BATRE; (B) AN 18-FOOT CHANNEL UP BAYOU LA BATRE THROUGH AND INCLUDING THE EXISTING TURNING BASIN WITH A TRANSITION TO A 14-FOOT CHANNEL TO A POINT ABOVE THE HIGHWAY 188 BRIDGE; AND (C) AN ENLARGED SIDE CHANNEL UP SNAKE BAYOU. THE TOTAL LENGTH OF IMPROVED CHANNEL WOULD BE ABOUT 23 MILES. WE ARE WORKING TO INSURE THAT ALL ENVIRONMENTAL CONCERNS ARE RESOLVED.

THE ESTIMATED TOTAL FIRST COST OF THE PROJECT IS $16,225,000. THE FEDERAL SHARE WOULD BE $4,492,000 AND THE NON-FEDERAL SHARE WOULD BE $11,733,000. AVERAGE ANNUAL COSTS ARE $2,188,900 AND BENEFITS ARE $7,747,900. BENEFIT-COST RATIO IS 2.7.

THE STATE OF ALABAMA, MOBILE COUNTY AND THE BAYOU LA BATRE PORT AUTHORITY HAVE INDICATED WILLINGNESS TO SPONSOR THE PROJECT.

THIS REPORT CONCERNS IMPROVEMENTS FOR FLOOD CONTROL IN CLIFTON, ARIZONA. IT IS IN PARTIAL RESPONSE TO SECTION 6 OF THE FLOOD CONTROL ACT OF 1938 (PUBLIC LAW 75-761). THE WATER RESOURCES DEVELOPMENT ACT OF 1986 AUTHORIZED A STRUCTURAL IMPROVEMENT AT CLIFTON, FOR WHICH THERE WAS NO CHIEF OF ENGINEERS REPORT. COMPLETION OF THE CHIEFS REPORT DEMONSTRATED A NEED FOR A PROJECT MODIFICATION INCLUDING A NON-STRUCTURAL ELEMENT.

CLIFTON IS LOCATED IN SOUTH-EASTERN ARIZONA, ALONG THE SAN FRANCISCO RIVER.

THROUGHOUT HISTORY CLIFTON HAS BEEN PLAGUED BY SEVERE FLOODING FROM THE SAN FRANCISCO RIVER. THE MOST DISASTROUS FLOOD OCCURRED IN OCTOBER 1983. APPROXIMATELY 40 HOMES WERE DESTROYED AND 230 SUFFERED MAJOR DAMAGE. IN ADDITION 41 BUSINESSES WERE DESTROYED AND 57 SUFFERED MAJOR DAMAGE. IN ALL FLOOD DAMAGES TOTALED OVER $20 MILLION.

THE RECOMMENDED PLAN FOR THE NORTH CLIFTON AREA CONSISTS OF EVACUATING AND RELOCATING 108 FAMILIES FROM FLOOD PLAIN AREAS

INTO FLOOD FREE REPLACEMENT HOUSING, AND FOR THE SOUTH CLIFTON AREA A 2,500-FOOT-LONG LEVEE TO PROTECT AGAINST THE 125-YEAR FREQUENCY FLOOD ON THE SAN FRANCISCO RIVER.

THE TOTAL FIRST COST OF THE PROJECT IS $12,510,000. AVERAGE ANNUAL COSTS ARE $628,000 AND AVERAGE ANNUAL BENEFITS ARE $749,000. THE BENEFIT-TO-COST RATIO IS 1.2.

THE STATE OF ARIZONA SUPPORTS AND WILL SPONSOR THE PROJECT.

THIS REPORT CONCERNS IMPROVEMENTS FOR FLOOD CONTROL ALONG THE UPPER JORDAN RIVER. THIS REPORT IS IN PARTIAL RESPONSE TO SECTION 6 OF THE FLOOD CONTROL ACT OF 1938 (PUBLIC LAW 75-761).

THE BASIN OF THE JORDAN RIVER IS LOCATED IN NORTH CENTRAL UTAH.

FLOODING ALONG THE JORDAN RIVER AND TRIBUTARY STREAMS IS MOST COMMONLY ASSOCIATED WITH SNOWMELT BUT ALSO FROM SUMMER THUNDERSTORMS, GENERAL RAINSTORMS, AND A COMBINATION OF SNOWMELT AND RAINFALL. THE MOST RECENT FLOODING OCCURRED IN SEPTEMBER 1982, JUNE 1983, AND JUNE 1984. THE AVERAGE ANNUAL DAMAGES TO EXISTING DEVELOPMENTS ARE ESTIMATED TO BE GREATER THAN $1,100,000.

THE RECOMMENDED PLAN CONSISTS OF DIVERTING MILL CREEK FLOOD FLOWS THROUGH A 7,440-FOOT DIVERSION CONDUIT TO AN ENLARGED LOCAL DRAINAGE DETENTION BASIN FOR SUBSEQUENT RELEASE INTO THE BIG

COTTONWOOD CREEK. THIS PLAN WOULD REDUCE FLOODING IN SALT LAKE COUNTY AND PROVIDE ABOUT 100-YEAR LEVEL OF PROTECTION ON MILL CREEK ABOVE STATE STREET.

THE TOTAL FIRST COST OF THE PROJECT IS $7,900,000. AVERAGE ANNUAL COSTS ARE $700,000 AND AVERAGE ANNUAL BENEFITS ARE $966,000. THE BENEFIT-TO-COST RATIO IS 1.4.

SALT LAKE COUNTY, UTAH SUPPORTS AND WILL SPONSOR THE PROJECT.

THIS REPORT CONCERNS NAVIGATION IMPROVEMENTS FOR THE GALVESTON BAY AREA, TEXAS. IT IS IN FINAL RESPONSE TO A RESOLUTION ADOPTED IN 1967 BY THE HOUSE PUBLIC WORKS COMMITTEE.

GALVESTON BAY PROVIDES ACCESS TO THE PRINCIPAL PORTS IN HOUSTON, TEXAS CITY, AND GALVESTON. AN INTERIM REPORT RECOMMENDING ENLARGEMENT OF THE TEXAS CITY CHANNEL WAS AUTHORIZED FOR CONSTRUCTION BY THE WATER RESOURCES DEVELOPMENT ACT OF 1986. THEREFORE, THIS REPORT FOCUSES ON THE FEASIBILITY OF IMPROVING THE HOUSTON SHIP CHANNEL AND GALVESTON CHANNEL.

THE PRIMARY NAVIGATION PROBLEM ON BOTH WATERWAYS IS INADEQUATE CHANNEL DIMENSIONS WHICH EITHER RESTRICT THE SIZE OF SHIPS WHICH CAN USE THE PORTS, OR REQUIRE THAT SHIPS HAVE TO ENTER LIGHTLOADED, THUS INCREASING TRANSPORTATION COSTS. RESTRICTED LOADS ALSO

INCREASE THE NUMBER OF SHIPS USING THE CHANNELS, THEREBY INCREASING DELAYS, THE POTENTIAL FOR COLLISIONS, AND OTHER HAZARDOUS CONDITIONS.

THE REPORT RECOMMENDS A 50- BY 600-FOOT WIDE CHANNEL FROM THE CONFLUENCE OF THE HOUSTON SHIP CHANNEL AND THE TEXAS CITY CHANNEL AT BOLIVAR ROADS TO THE VICINITY OF THE SHELL DOCKS IN HOUSTON. ADDITIONAL WIDENING IS PROVIDED TO THE CLINTON ISLAND TURNING BASIN ON THE HOUSTON SHIP CHANNEL. IMPROVEMENTS FOR THE GALVESTON CHANNEL WOULD INCLUDE A 50- BY 450-FOOT CHANNEL WITHIN THE EXISTING CHANNEL. THE PLAN ALSO INCLUDES BUOYED SHALLOW DRAFT AUXILIARY CHANNELS ON BOTH SIDES OF THE GALVESTON ENTRANCE CHANNEL; BEND EASING AT THE INTERSECTION OF THE HOUSTON SHIP CHANNEL AND THE GULF INTRACOASTAL WATERWAY; AND IMPROVEMENTS TO THE OVERALL SYSTEM OF AIDS TO NAVIGATION. DISPOSAL OF DREDGED MATERIAL WILL BE IN ACCORDANCE WITH THE FINAL CHIEF'S REPORT.

AS A PART OF THE RESOURCE AGENCY REVIEW PROCESS UNDER NEPA, THE FISH AND WILDLIFE SERVICE AND NATIONAL MARINE FISHERIES SERVICE HAVE EXPRESSED CONCERNS OVER THE ENVIRONMENTAL IMPACTS OF THE PROJECT, INCLUDING THE VARIOUS MAINTENANCE DREDGING OPTIONS CONSIDERED AND THE MITIGATION PLAN. WE ARE CURRENTLY WORKING WITH THESE AGENCIES TO RESOLVE THEIR CONCERNS AND HAVE EXTENDED THEIR TIME FOR REFERRAL TO THE PRESIDENT'S COUNCIL ON ENVIRONMENTAL QUALITY.

THE REPORT OF THE CHIEF OF ENGINEERS STATES THAT THE TOTAL FIRST COST OF THE RECOMMENDED 50-FOOT PLAN IS $499,663,000 OF WHICH $192,208,000 IS FEDERAL COST, AND $307,455,000 IS

NON-FEDERAL COST. THE AVERAGE ANNUAL BENEFITS ARE $ 66,856,000 AND THE AVERAGE ANNUAL COSTS ARE $47,123,000. THE BENEFIT-COST RATIO IS 1.4. THESE COSTS ARE SUBJECT TO CHANGE, PENDING RESOLUTION OF THE ENVIRONMENTAL CONCERNS.

THE PORT OF HOUSTON AUTHORITY AND THE GALVESTON WHARVES WILL SERVE AS NON-FEDERAL SPONSORS FOR THE PROJECT.

THIS REPORT CONCERNS THE FLOOD PROTECTION WORKS IN THE BUFFALO BAYOU BASIN, METROPOLITAN AREA OF HOUSTON, TEXAS. IT IS IN FINAL RESPONSE TO A RESOLUTION ADOPTED IN 1948 BY THE HOUSE PUBLIC WORKS COMMITTEE.

THE BUFFALO BAYOU BASIN IS LOCATED IN HARRIS COUNTY IN SOUTHEAST TEXAS AND ENCOMPASSES MOST OF THE HOUSTON METROPOLITAN AREA, WITH A POPULATION OF NEARLY TWO MILLION.

THE 1,034 SQUARE MILE DRAINAGE BASIN IS SUBJECT TO OVERBANK STREAM FLOODING, RESULTING IN FREQUENT INUNDATION OF URBAN AND SUBURBAN PROPERTIES. A 100-YEAR FREQUENCY FLOOD WOULD INUNDATE OVER 98,000 STRUCTURES, VALUED AT OVER $9.1 BILLION.

THE REPORT RECOMMENDS CONSTRUCTION OF FLOOD DAMAGE REDUCTION PLANS FOR SIX TRIBUTARY BAYOUS. NEIGHBORHOOD TYPE RECREATION PLANS ARE ALSO RECOMMENDED ON FLOOD CONTROL LANDS IN THESE BASINS. VEGETATIVE SCREENING AND MITIGATION IS ALSO INCLUDED.

THE PLAN FOR CARPENTERS BAYOU CONSISTS OF STREAM ENLARGEMENTS FOR THE URBANIZED REACHES OF THE STREAM, PROVIDING 10-YEAR FREQUENCY FLOOD PROTECTION. THIS WOULD REDUCE POTENTIAL AVERAGE ANNUAL DAMAGES BY ABOUT 81.5 PERCENT.

THE GREENS BAYOU PLAN INCLUDES SELECTIVE STREAM CLEARING, ENLARGEMENTS, AND FLOOD DETENTION BASINS. IT WOULD PROVIDE APPROXIMATELY 25-YEAR FREQUENCY FLOOD PROTECTION AND WOULD REDUCE AVERAGE ANNUAL DAMAGES BY ABOUT 91.2 PERCENT.

THE HALLS BAYOU PROPOSAL CONSISTS OF STREAM ENLARGEMENTS, PROVIDING ABOUT 10-YEAR FREQUENCY FLOOD PROTECTION. AVERAGE ANNUAL POTENTIAL FLOOD DAMAGES WOULD BE REDUCED BY NEARLY 95 PERCENT.

THE PLAN FOR HUNTING BAYOU CONSISTS OF STREAM ENLARGEMENTS TO PROVIDE 25-YEAR FREQUENCY FLOOD PROTECTION. THIS PLAN WOULD REDUCE POTENTIAL AVERAGE ANNUAL DAMAGES BY ABOUT 96.9 PERCENT.

THE LITTLE WHITE OAK BAYOU PLAN CONSISTS OF STREAM ENLARGEMENTS TO PROVIDE 25-YEAR FLOOD PROTECTION. A SHORT REACH OF THE STREAM WOULD BE LEFT IN ITS NATURAL STATE TO AVOID VEGETATION DESTRUCTION. THE PROPOSED PLAN WOULD REDUCE AVERAGE ANNUAL DAMAGES BY ABOUT 87.0 PERCENT.

THE BRAYS BAYOU PROPOSED PLAN INCLUDES CHANNEL IMPROVEMENTS, FLOOD DETENTION BASINS, DIVERSION STRUCTURES, AND INTERCONNECTING CHANNELS. THE PROJECT WOULD UPGRADE THE LEVEL OF FLOOD PROTECTION ALONG BRAYS BAYOU TO ABOUT 100 YEARS AND WOULD SUBSTANTIALLY REDUCE FLOODING ALONG ITS TRIBUTARY OF WILLOW WATERHOLE BAYOU BY DIVERTING A PORTION OF ITS FLOOD FLOWS FROM THE BASIN. FLOOD DAMAGES ALONG BRAYS BAYOU WOULD BE REDUCED BY ABOUT 95 PERCENT.

THE TOTAL FIRST COST OF THE RECOMMENDED PLAN IS $544,604,000. THE AVERAGE ANNUAL BENEFITS ARE $217,122,000 AND THE AVERAGE ANNUAL COSTS ARE $58,329,568. THE BENEFIT-COST RATIO IS 3.7.

HARRIS COUNTY FLOOD CONTROL DISTRICT WILL SERVE AS LOCAL SPONSOR FOR THE PROJECT.

THIS CONCLUDES MY STATEMENT, MR. CHAIRMAN.

AMERICAN PUBLIC POWER ASSOCIATION

2301 M STREET NW WASHINGTON DC 20037 · 202/467-2900

**Statement of the
AMERICAN PUBLIC POWER ASSOCIATION
Submitted to the
SUBCOMMITTEE ON WATER RESOURCES
HOUSE COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
on
Water Resources Development Act of 1990**

March 23, 1990

The American Public Power Association believes this subcommittee should include in the Water Resources Development Act of 1990 procedural requirements to curb the exercise of excessive discretionary authority by the U.S. Army Corps of Engineers and to ensure that federal water projects constructed by the Corps are operated within the parameters established by Congress.

APPA is the national service organization representing more than 1,750 locally owned public power systems. Approximately 500 of these public power systems -- in addition to more than 600 rural electric cooperatives -- purchase power generated at federal multipurpose water projects, including 73 projects constructed and operated by the Corps of Engineers.

As this subcommittee knows, when new federal water projects are proposed, specific purposes are authorized and costs are assigned to each purpose. Some costs are reimbursable -- repaid by the beneficiary group -- while other costs are deemed non-reimbursable and the responsibility of the federal government. Federal power customers repay in full and with interest the federal investment in hydropower facilities. In fact, this repayment responsibility of power customers -- who repay on the average more than 60 percent of the capital costs of constructing multipurpose water projects -- has been critical to making construction of these facilities economically feasible.

Federal power customers recognize that uses which were not anticipated and not authorized by Congress when these projects were first considered have developed over the years. Often these unauthorized uses -- such as recreation and water supply -- reflect growing social and economic values.

Federal power customers are willing to accommodate the objectives of these unauthorized project interests, provided this is achieved under equitable terms and through an open and deliberative process. As articulated in the attached report prepared in 1989 by an APPA task force in response to these emerging conflicts among project interests, federal power customers believe that beneficiaries of authorized project purposes should be fully compensated for the value of any benefits transferred to beneficiaries of new or expanded project uses. As this subcommittee is aware, this approach was successfully employed in resolving a conflict between water supply and power interests at Denison Dam and is being used as a model to resolve other disputes.

Unfortunately, this equitable approach to conflict resolution is being frustrated and undermined by the cavalier actions of the Corps of Engineers. In the Southeast, in the Missouri Basin region, and elsewhere, the Corps is seeking to manage federal water projects arbitrarily with seemingly unbounded discretion. The Corps' actions have resulted in:

- uncertainty for project users;
- inconsistencies in Corps policies and their implementation;
- unbalanced water management practices; and
- de facto reallocation of project reservoirs and benefits without congressional authorization or public involvement.

In the Southeast, the Corps arbitrarily has altered the operation of the Georgia-Alabama System projects to the detriment of beneficiaries of congressionally authorized purposes. Without congressional authorization or review, the Corps has added new categories of project beneficiaries and altered the operation of projects to advance unauthorized uses. Similarly, the Corps' response to severe drought conditions in the Missouri Basin has triggered demands for a basin-wide review of the Corps' operating standards and suggests that certain operating decisions should be made only after consultation with all affected parties.

While the Corps should be allowed sufficient discretionary authority to respond to extreme emergency conditions and to make truly minor adjustments in response to changing hydrologic conditions, its authority is properly bounded by the congressional authorization for a project and the documents which support and implement that authorization. The authority to add new project purposes, reallocate project storage or benefits, or significantly alter project operations is vested exclusively in Congress.

APPA previously testified before this subcommittee to raise concerns about the Corps' use of excessive discretionary authority. In response to those concerns, Section 5 of the Water Resources Development Act of 1988 was enacted to provide project beneficiaries with certain due process rights prior to the taking of significant actions by the Corps. Unfortunately, the Corps has not lived up to the letter or spirit of this requirement.

APPA urges Congress to take additional steps to curb the Corps' arbitrary exercise of excessive discretion. Enhanced public procedures should be established to ensure that any changes in the operations of federal water projects are consistent with congressional intent and that all parties affected by the Corps' actions have a guaranteed opportunity to participate fully and formally in the Corps' decision-making process. The procedures also should guarantee that any reconsideration of project operations and purposes be pursued through an orderly, open, equitable process rather than being implemented by the Corps through administrative fiat. It is not APPA's intent or desire to micro-manage the activities of the Corps. However, it is essential that the Corps' activities and discretionary authority remain within the boundaries set by Congress.

APPA looks forward to working with the subcommittee to resolve this vexing problem which frustrates proper management of the nation's water resources.

AMERICAN PUBLIC POWER ASSOCIATION
2301 M STREET NW WASHINGTON DC 20037

RESOLUTION OF COMPETING USES AT FEDERAL WATER PROJECTS:
A Report of the APPA Task Force on Federal Water and Power Policies

Purpose

With increasing frequency, federal power customers are facing administrative and legislative efforts to resolve competing demands at federal water projects. Often the proposed resolution would harm federal power customers either through increased federal power rates or reduction in power benefits. In an effort to establish guidelines for resolving these competing demands, while protecting the short and long-term interests of federal power customers, the APPA Task Force on Water and Power Policies was established. This task force met with representatives of relevant federal agencies, congressional staff, and other project interests. This report presents guidelines proposed by the Task Force for resolving conflicts at federal water projects. The report addresses: new project purposes and the revision of existing project purposes; western irrigation assistance; federal water projects and the environment; and conservation. While these guidelines will help in the development of satisfactory conflict resolutions, individual conflicts will still be resolved on a case-by-case basis.

Introduction

Decades of federal water policy have been based upon the concept of comprehensive development -- harnessing the nation's rivers in a manner that promotes multiple-purpose use -- at specific projects, within entire river basins, and beyond. If development of these national resources were left to private interests, it was argued, only the profitable ventures would be pursued, and the unprofitable goals -- such as flood protection -- would be left unmet.

Consumer-owned utilities -- public power systems and rural electric cooperatives -- entered into a partnership with state and local economic interests and the federal government to provide the financial and political support necessary for meeting this goal of comprehensive development. Under the terms of this partnership, consumer-owned utilities receive a first right to purchase, at cost-based rates, the power generated at federal multipurpose water projects that is beyond that needed for actual project operation. This federally generated power is an integral part of the long-term power supply plans of these consumer-owned utilities.

In return, these federal power customers are obligated to repay all operation, maintenance and replacement (O,M&R) costs, and repay with interest the federal cost of constructing these power facilities. According to a 1984 Department of Energy study, federal power customers repay, on a national average, more than 60 percent of the total capital costs of constructing federal multipurpose water projects, and more than 80 percent of reimburseable project costs. In addition, in the 17 western states in which the Bureau of Reclamation operates, power customers assist in the repayment of other specific, statutorily assigned, non-power costs.

This partnership has been a national success that must continue. The financial participation of consumer-owned utilities made these projects economically feasible and enabled the nation to meet the goal of comprehensive development -- managing the nation's waterways to provide flood protection, navigation, municipal and industrial (M&I) water, irrigation, power production, fish and wildlife protection, and recreational opportunities.

These multipurpose projects have met -- and continue to meet -- their original stated purposes, e.g. cities and farms are protected from flooding; an elaborate inland waterway system of transportation exists; and federal hydropower is an important part of the nation's energy mix. But today these achievements are sometimes forgotten, while at the same time, new objectives for these federal facilities are being pursued. Once constructed, the reservoirs and rivers controlled by these dams have been used for additional purposes -- uses not considered when these projects were authorized and constructed. Project reservoirs are used for boating and fishing; stored water is withdrawn for M&I water supply; scheduled dam releases have spawned commercial rafting ventures; and controlled flows have created new opportunities for fish and wildlife management.

In many cases, these unanticipated project uses represent emerging societal values -- values that are driven by the changing needs and priorities of the country. Changes in demographic patterns and economic interests advance objectives that may be in conflict with existing federal natural resource policies: competing demands between rural and urban interests for available water supplies; an expanding conservation ethic, with increased value placed on the preservation of limited natural resources; and, an increasing importance of tourist and service industries as the economic base of natural resource rich states.

With increasing frequency, advocates of interests not represented in original project authorizations are seeking changes in the operation, use and management of federal water projects in order to secure or enhance their interests. Through the process of comprehensive development, the water stored at these facilities has been allocated fully among existing authorized uses. Consequently, in most cases, the additional demands placed on these resources by advocates of new interests cannot be met without reducing the benefits currently received by users of authorized project purposes.

Federal power customers recognize the emergence of new societal goals and will participate constructively in reconciling the conflicting demands of original and new project interests. Power customers believe that new project interests must recognize the investment and concerns of authorized project beneficiaries, and must provide sufficient financial assistance to cover the resulting costs and losses of benefits. Any proposed resolution must be consistent with the primary policy that fostered construction of these projects: comprehensive development.

Federal hydropower is an important national resource as well as an important resource for federal power customers. On a national level, hydropower generation contributes to strategies to deal with acid rain, control the "greenhouse effect", increase national energy independence, promote competition and diversity in the electric utility industry, and improve international economic competitiveness. On the local level, continued access to federal hydropower contributes to stable electric rates, local economic development, and predictable utility planning. These values must be continually stressed in order to increase public appreciation of the current operation and management practices of the federal water and power program.

The objectives underlying federal power policies were sound when initiated and remain so today. Any effort to meet new objectives in the management and use of federal water projects must recognize the value of existing federal policies.

New Project Purposes and Revision of Existing Purposes

Federal water projects are authorized to meet distinct project purposes and the costs of constructing the projects are assigned among these purposes. Existing beneficiaries of authorized project purposes should not be asked to subsidize the addition of new or expanded project purposes that reallocate project benefits. If benefits are transferred from one project use to another, so too should cost responsibility be transferred and lost benefits compensated. While the determination of appropriate compensation is dependent on the value of the resource and the extent and nature of the proposed operational changes, in general, any authorization of a new project purpose should hold power customers -- and other beneficiaries of authorized project purposes -- harmless.

Even minor changes in project operation can have substantial impact on the value of the resource for power generation. Project capacity, the "firmness" of the power, timing of generation, and availability of nonfirm power all affect the value of the resource and all can be affected by apparently minor changes in project operation. Therefore, new project beneficiaries must "buy into" an existing project by compensating existing authorized beneficiaries for benefits foregone to ensure prioritization of benefits in a fiscally responsible manner. Under this approach, only those operational changes that provide cost-effective benefits will be pursued.

New project beneficiaries should pay for directly related costs, provide compensation for lost benefits, and share in joint-use and OM&R costs. Necessary financing could be obtained through a variety of means, including project-specific user fees, special purpose district assessments, or imposition of a national value added tax on associated goods, such as recreational services and equipment.

Prior to any congressional authorization of new project purposes, the impact of such a change should be fully studied, the new project purposes should be subject to a congressionally authorized, federally financed cost-benefit analysis, and any change should require appropriate compensation for any loss or transfer of benefits.

Further, designation of new project purposes should not be pursued on a generic basis. For instance, recreation advocates have attempted to interpret the Federal Water Project Recreation Act of 1965 to establish generic authorization of recreation as a project purpose at all Corps projects. Contrary to this interpretation, only project-specific authorizations can assign project purpose status. Absent specific congressional designation, unauthorized project purposes can be promoted only to the extent that authorized purposes are not adversely impacted. Only case-by-case designation of new project purposes can ensure that changes in project operation are warranted, appropriate, cost-effective, do not violate contracts and established rights, and are consistent with long term power planning.

Western Irrigation Assistance

Under existing reclamation law, federal power customers in 17 western states pay the cost of federal power facilities plus those costs of federal irrigation projects that are deemed to be beyond the irrigators' "ability to pay." Under this policy, power customers have assumed considerable repayment responsibility -- as much as 98 percent of the cost of federal irrigation projects. This policy of irrigation assistance has assured the revenues needed to repay the construction costs of numerous irrigation projects throughout the West. There are also many authorized irrigation projects that have not yet been constructed and may never meet tests of feasibility.

Federal power customers entered into a partnership with the federal government and local irrigation districts in order to assure repayment of these federal multipurpose reclamation projects, accepting a considerable financial responsibility in order to assist the nation in building the infrastructure needed to develop a rich and diversified agricultural sector. Federal power customers have honored their commitment and will honor existing financial commitments to repay completed irrigation projects, provided that no changes are made in the terms of repayment. However, unilateral, after-the-fact, policy changes in irrigation policies that affect federal power rates and project operations are not equitable.

Federal power customers will continue to honor this historical financial commitment for authorized but as yet unconstructed irrigation projects under traditional methods of determining project feasibility, financing, and repayment. But if these traditional methodologies are to be changed, then a new compact for financing irrigation projects may be needed. Federal power customers may be willing to consider, on a case-by-case basis, a new compact for construction of fiscally sound, environmentally acceptable, previously authorized irrigation projects under non-traditional methods of financing, provided that power customers receive proportionate benefits and have a voice in determining the terms of financial assistance. Any power customer financial assistance must be predicated on least-cost construction plans and a substantial level of local, non-power, cost-sharing.

In certain instances where currently authorized federal irrigation projects have not been constructed, local interests may seek to substitute new water projects for authorized, unconstructed irrigation projects in order to put to beneficial use the associated water in a manner consistent with applicable water law. In such instances, a new federal statutory compact may be needed. Federal power customers may provide assistance under a new compact provided that water projects constructed under any new compact are fiscally sound, environmentally acceptable, and predicated on least-cost construction plans. Further, other project beneficiaries must provide a substantial level of local cost-sharing, and power customers must receive proportionate benefits.

The Environment

In some instances, development of the nation's rivers has resulted in environmental costs, such as depletion of fish population and reduction in wildlife habitat. In other instances, project construction has created environmental benefits, including an increase in the number of fish and improvement of wildlife habitat. Increasingly, environmental advocates, as well as recreationists and commercial recreation operators, are seeking changes in project operations to promote their interests. Some of the proposed changes constitute environmental mitigation efforts intended to rectify the impacts of project development. Other proposed changes are enhancement measures, designed to create or augment benefits at those projects beyond those that existed prior to construction of the dam. In determining the financial responsibility of federal power customers, the distinction between environmental mitigation and enhancement is critical.

Environmental mitigation encompasses those efforts designed to offset environmental impacts resulting from construction of these federal projects. Efforts to improve conditions beyond those that existed prior to construction of these facilities -- or to improve environmental conditions or opportunities that were created by construction of the facility -- are enhancement rather than mitigation measures.

A. Environmental Mitigation

Federal water projects were planned, constructed and operated by the federal government for broad public purposes with the support of local economic interests, including federal power customers. All project beneficiaries, and the public at large, share responsibility for the environmental impact of these projects. Therefore, it is appropriate for all beneficiaries, including the general public, to share equitably some costs of appropriate mitigation efforts.

Factors to be considered in mitigation efforts should include:

- o Development of benchmarks for pre-construction environmental conditions which can be used to distinguish mitigation and enhancement efforts and determine progress in achieving mitigation goals.
- o Establishment of specific biological goals and priorities that are economically reasonable. These goals and priorities should be pursued through least-cost means. In this fashion, mitigation dollars will go farther and will be expended in a manner that achieves the greatest possible good.
- o Recognition that adverse actions beyond the scope of the project --

or the controls of project beneficiaries -- may affect successful mitigation efforts and such adverse activities should be considered in setting responsible financial limits. For instance, offshore commercial fishing operations in the Pacific Northwest may undercut salmon restoration efforts in the Columbia River Basin that are funded by power customers.

- Crediting of project beneficiaries for environmental benefits that are created by project construction and operation. For instance, the responsibility of project customers for mitigation expenses should be reduced if existing project operations create certain environmental opportunities that did not exist prior to construction of the facility.

B. Environmental Enhancement

Efforts may be advocated to enhance the environment to a state that did not exist prior to construction of these facilities. Similarly, initiatives may be advocated to enhance recreational and wildlife management conditions and opportunities that were created by construction of these federal water projects. While these enhancement efforts may be appropriate, it is inappropriate to impose financial responsibility for these enhancement programs on power customers. If there are to be enhanced environmental and commercial recreational opportunities at federal water projects, then the financial responsibility appropriately rests with those that will directly benefit from these enhanced opportunities as well as the public at large.

Conservation

A. Federal Power Conservation

Federal power customers recognize the value of federal hydropower. This resource plays an important role in providing reliable, affordable power to electric consumers, and displaces the use of more expensive, non-renewable resources. But hydropower is a limited resource. While some upgrades and additions can increase federal hydropower generation, the majority of large-scale domestic hydroprojects have long since been developed.

Given the limited nature of this valuable resource, federal power customers must support the efficient use of federal hydropower. Conservation, load management, and energy efficiency programs are common practices among federal power customers, and many of these programs are conducted in coordination with the federal power marketing agencies. While these efforts have been widely successful, federal power customers should continue to pursue appropriate, cost-effective programs to improve end-use and system efficiencies. However, conservation cannot be pursued blindly; programs must be tailored to best meet the needs of individual utilities, communities and geographic locales. Differences in regional character, system supply and demand, and consumer needs must all be balanced in designing appropriate and cost-effective conservation programs. However, diverse options -- ranging from line-loss improvements to demand-side planning -- are available.

Federal power customers will continue their long-standing practice of efficient resource management. In cooperation with the federal power marketing agencies, federal power customers will promote end-use and system efficiency programs that increase the value of federal hydropower to their consumer-owners.

B. End-Use Water Conservation

Efforts to date to resolve competing uses at federal water projects have focused primarily on the reallocation of stored water, or changes in the release pattern of stored water, in order to meet new or expanded project purposes. However, it is possible that aggressive end-use water conservation measures could create "new" supplies of water that could be used to meet these new or expanded needs.

End-use water conservation practices should not -- and need not -- be designed to reduce the benefits currently received by irrigators and M&I water users. Rather, an appropriate water conservation policy would be designed to ensure that all, or a great percentage of, water is actually applied to the intended use and not wasted due to leaks, spills, inadaquate or non-existent measurement of water use, or evaporation. For instance, although irrigation efficiency has improved in some areas, substantial improvements are still possible through various techniques, including the lining of earthen canals and leveling of irrigated fields. According to U.S. Soil Conservation Service data, more efficient irrigation practices could save as much as 24 million acre feet per year nationwide. Similarly, studies by the California Department of Water Resources estimates that a state program for installation of low-flow toilets could save 100,000 acre feet per year.

Federal power customers strongly encourage the implementation of appropriate end-use water conservation programs and practices. Prior to any reallocation of stored project water for consumptive use, federal power customers believe that the intended beneficiary should be required to make a positive showing that the water is needed after the implementation of apropriate, cost-effective, end-use water management practices.

Conclusion

As conflicts arise, federal power customers will continue to seek resolutions that mitigate the loss of power benefits. The inclusion of impact and cost-benefit analysis, cost-sharing, and compensation will ensure that the level of new benefits being sought is economically sound. As conflicts arise and reconciliation efforts are initiated, power customers are entitled to seek offsets for any losses resulting from the acceptance of new obligations. Examples of the positive policy changes that would assist power customers in meeting these new obligations include increased resource certainty, enhanced federal transmission service, and resource firming.

Federal power customers are willing to work with other interests in order to shape federal water and power policies to meet enduring societal objectives. However, any effort to adjust federal water project operations must not take place in a vacuum. Any policy adjustment must take a long range perspective that: recognizes existing investments and commitments; considers the multitude of national goals; is economically and environmentally sound; and assigns appropriate financial responsibility consistent with the benefits received. Only in this manner can the overriding mandate of comprehensive development be kept current with our national goals and objectives.

CASS BALLENGER
10TH DISTRICT, NORTH CAROLINA

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WASHINGTON, DC 20515
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COMMITTEES:
EDUCATION AND LABOR
PUBLIC WORKS AND TRANSPORTATION

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704-864-9922

March 9, 1990

The Honorable Robert W. Page
Assistant Secretary
U.S. Army (Civil Works)
2 E 570
The Pentagon
Washington, D.C. 20310

Dear Mr. Page:

I would appreciate a response in writing regarding the following concern. To recap, in 1976, the Army Corps of Engineers began investigating the possibility of constructing a dam on the First Broad River in Cleveland County, N.C. The study determined that there was not sufficient justification to proceed with a federal multi-purpose reservoir project. However, I believe a significant problem exists and since 1988, I have made numerous attempts to encourage the Corps to review and update the study.

In June, 1989, I was notified that $60,000 would be made available to initiate the reconnaissance study. Months later I was told that only $10,000 would be released for a preliminary study to determine whether the Corps would proceed with the complete study. On January 25, 1990, Corps personnel met in Polkville, N.C. to survey the land and collect information for this purpose. I would like to know the results of this visit and, if the Corps is serious about pursuing a more comprehensive study?

Thank you for giving consideration to this matter. Please forward a copy of your response to Mr. Joseph A. Italiano, Editor, Committee on Public Works and Transportation, 2253 RHOB, Washington, D.C., 20515.

Sincerely,

CASS BALLENGER
Member of Congress

CB:ll

COASTAL
TOWING, INC.,

APR 6 RECD

55408

April 2, 1990

377

APR 9 1990

Honorable John Paul Hammerschmidt
U.S. House of Representatives
Washington, D.C. 20515

Dear Congressman Hamamerschmidt:

I am Ed Griffin with Coastal Towing company and we are very concerned about the potential for loss of the navigability of the Gulf Intracoastal Waterway (G.I.W.W.) in the stretch known as Sargent Beach located on the Texas coast just east of Matagorda Bay. I would like to request that this letter be entered into the record of the ongoing proceedings of the Water Resources Subcommittee.

Erosion has created a situation where the protective barrier peninsula separating the Gulf of Mexico from the G.I.W.W. has been reduced to a very thin area of low lying land. Any given tropical storm is capable of inundating this area and filling the G.I.W.W. in with sand and debris. In addition, a breach of the G.I.W.W. would sacrifice our environmental objectives as the present coastal barriers serve to protect shoreline ecology. A permanent breach of the protective barrier would result in closure of the canal until the breach could be repaired.

This is clearly a situation where prevention will be much more economical than the attempted cure after a breach has already occurred. Because of the clay foundation in the Sargent Beach area, any damage sustained by storm or erosion may well be permanent.

The Gulf Intracoastal Waterway is critical to my company from a supply and distribution standpoint. It is critical to south Texas and the nation as an artery of commerce.

Please support the Corps of Engineers' agenda by making this a top priority for navigation projects and funding. The Corps must be encouraged to move forward as quickly as possible to avoid an unfortunate future disaster for the G.I.W.W.

Sincerely,

Edgar C. Griffin
Edgar C. Griffin
President

56473

PW –
Water

HMS Fuels, Inc.
5300 Memorial
Sixth Floor • Houston, Texas 77007
Office (713) 868-2000 • Marine Facility (713) 424-2525 • TWX 910-881-7166

Water for reply

RECEIVED
APR 3 1990
PUBLIC WORKS AND TRANSPORTATION COMMITTEE

356

March 26, 1990

The Honorable John Paul Hammerschmidt
Subcommittee on Water Resources
B370-A Rayburn House Office Bldg.
Washington, DC 20515

Dear Mr. Hammerschmidt:

We are very concerned about the potential loss of the navigability of the Gulf Intracoastal Waterway in the stretch known as Sargent Beach located on the Texas coast just east of Matagorda Bay. We would like to request that this letter be entered into the record of the ongoing proceedings of the Water Resources Subcommittee.

Erosion has created a situation where the protective barrier peninsula separating the Gulf of Mexico from the Gulf Intracoastal Waterway has been reduced to a very thin area of low lying land. Any given tropical storm is capable of inundating this area and filling the Gulf Intracoastal Waterway in with sand and debris. In addition, a breach of the Gulf Intracoastal Waterway would sacrifice our environmental objectives as the present coastal barriers serve to protect shoreline ecology. A permanent breach of the protective barrier would result in closure of the canal until the breach could be repaired.

This is clearly a situation where prevention will be much more economical than the attempted cure after a breach has already occurred. Because of the clay foundation in the Sargent Beach area, any damage sustained by storm or erosion may well be permanent. A presentation summary is enclosed to provide you or your staff additional information on this urgent issue.

Please support the Corps of Engineers' agenda by making this a top priority for navigation projects and funding. The Corps must be encouraged to move forward as quickly as possible to avoid an unfortunate future disaster. The Gulf Intracoastal Waterway is critical to our company from a supply and distribution standpoint. It is critical to south Texas and the nation as an artery of commerce.

Sincerely,

Geren L. Graham
President

GLG:kyp

Enclosure

INTRODUCTION

My name is Berdon Lawrence and I am President of Hollywood Marine, Inc. which is a Houston, Texas based inland tank barge company. We operate 232 tank barges and 108 tow boats on the Gulf Intracoastal Waterway. Our customers are the petroleum and petrochemical refiners.

Thank you for the opportunity to discuss a serious problem in our region. I will ask for 10 minutes to present my summary here and I have a detailed statement that I have filed with the clerk that I would like printed in full in the record.

My purpose is to discuss the threatened closure of the Gulf Intracoastal Waterway over a seven mile stretch from approximately the mileboard 412 to 419 known as "Sargent Beach."

I have divided my remarks into three areas:

I. Background and General Overview of the Gulf Intracoastal Waterway.

II. The Specifics of the threatened closure at Sargent Beach

III. Then I will be happy to attempt to answer any questions you may have.

I. BACKGROUND AND GENERAL OVERVIEW

The tank barges that our company and other similar barge companies operate on the Gulf Intracoastal Waterway range in size from 10,000 to 30,000 barrels and are pushed with 800 to 1,800 horsepower tow boats in tows consisting of two or three barges. The tows move raw materials and finished goods up and down the Gulf Intracoastal. In many cases these products also connect and continue on the Mississippi and Ohio River Systems or on pipelines serving Mid America and the East Coast and also with shipments of products being exported by ship out of the country.

A KEY POINT I WANT TO MAKE IS ALTHOUGH THE EROSION AT SARGENT BEACH IS A PROBLEM LOCATED IN TEXAS, IT IS A PROBLEM THAT ALSO HAS NATIONAL AND INTERNATIONAL IMPLICATIONS.

The Gulf Intracoastal Waterway was constructed during the 1930's to accomplish the two-fold objective of being a national transportation security measure and being a public works project. Over the past fifty years, it has developed into a vital transportation mode for commerce linking key Gulf Coast ports together with cost effective, safe and efficient transportation of bulk materials. The Texas Transportation Institute estimates that the Texas portion of the Gulf Intracoastal Waterway, alone, contributes three billion dollars per year in direct revenues and expenses to the Texas economy.

The volumes transported on the Gulf Intracoastal Waterway are such that there are no practical alternatives should the canal be closed. A normal size tow of 50,000 barrels (5,000 tons) would require 75 rail cars and 300 trucks. There are hundreds of these types of tows operating on the canal each day. The Corps of Engineers estimates that over 75 million tons of cargo will traverse the Texas portion of the Gulf Intracoastal in 1990.

AS YOU CAN SEE BY THESE VOLUMES, TRYING TO MOVE THESE PRODUCTS BY RAIL TRUCKS WOULD CREATE ABSOLUTE GRIDLOCK

II. SPECIFICS OF THE THREATENED CLOSURE

Shoreline erosion is an urgent concern all along the Gulf Coast. It has been estimated by the U.S. Army Corps of Engineers that of the 400 miles of Texas shoreline, about sixty percent is eroding. This erosion is a natural phenomena that has been going on for well over the past one hundred years.

One of the worst erosion areas in Texas is the Sargent Beach stretch in Matagorda County. Approximately seven miles of this reach of the Gulf Intracoastal Waterway directly parallels the shoreline very closely.

IT IS IMPORTANT FOR YOU TO KNOW THAT THIS IS THE ONLY AREA OF THE 1,200 MILES OF THE GULF INTRACOASTAL WATERWAY WITH BOTH EROSION OF THIS NATURE BEING COMBINED WITH THE CANAL BEING SO VERY CLOSE TO THE GULF. THIS PRESENTS THE SHORT TERM DANGER OF THE CANAL BEING BREACHED BY THE SURF OF THE GULF.

Erosion since 1974 has been closely monitored by the Corps of Engineers and their data shows the erosion rate ranges from 25 to 56 feet per year. This continued erosion has resulted in the loss of the beach and the loss of an entire subdivision of private residences. Currently, the shoreline is less than 600 feet from the Gulf Intracoastal Waterway in some areas along the Sargent Beach stretch. I cannot overemphasize the critical nature of this issue from a timing standpoint! Studies vary as to when the breaching will occur. Many feel it could occur as soon as five years depending on the number and size of hurricanes that hit the Gulf Coast or it could be as long as fifteen years. The problem is that no one can predict the frequency and velocity of hurricanes.

If there is a breach, the Gulf Intracoastal Waterway will be closed to standard inland barge traffic. Our vessels are designed to operate in sheltered inland waters and would be unsafe to navigate in what would become the surf of the Gulf of Mexico if the breach occurs. Also, it would be impossible to maintain the dredged depth in the surf zone and the entire stretch would fill in with sand and silt as the surf moved further inland. The Colonel of the Corps of Engineers - Galveston District, Col. Brink Miller, has stated that a breach would close the Intracoastal Waterway. This would effectively sever all barge traffic south of the San Bernard River and isolate the lower 250 miles of the Texas coast, including the ports of Bay City, Victoria, Pt. Lavaca, Corpus Christi, Harlingen and Brownsville.

I am here to tell you today that prevention of the breach is critical! Corpus Christi is the 6th largest port in the United Sates, with Houston being the 3rd. Texas is the largest maritime state in the nation. A major reason being the synergy created by the interconnection of the Gulf deep water ports provided by the Gulf Intracoastal Waterway. Col. Miller has placed the Sargent Beach erosion problem as the highest priority on the Galveston District's agenda. I have reviewed the alternative plans the Corps of Engineers have proposed. In my opinion the reinforcement of the protective 600 foot land strip on the seaward side of the canal makes much more sense than attempting to rerouting the canal. I understand that the estimated cost of reinforcement to be in the $15-40 Million range, depending on which specific method is used. The barrier strip contains many private residences and provides protection for not only the Gulf Intracoastal Canal, but also for several environmentally sensitive wet lands that would also be eventually destroyed by direct wave action.

As a representative of the tug and barge industry, I can only echo the sentiment that this is a very serious matter that demands immediate action.

CLOSING

Thank you very much for giving me this opportunity to discuss this serious problem with you. I would be happy to now attempt to answer any questions you may have.

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APR 09 1990

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APR 10 1990
PUBLIC WORKS AND TRANSPORTATION COMMITTEE

Dear Congressman JOHN HAMMERSCHMIDT :

I am Peggy Wallace with TRANS MARKETING company and we are very concerned about the potential for loss of the navigability of the Gulf Intracoastal Waterway (G.I.W.W.) in the stretch known as Sargent Beach located on the Texas coast just east of Matagorda Bay. I would like to request that this letter be entered into the record of the ongoing proceedings of the Water Resources Subcommittee.

Erosion has created a situation where the protective barrier peninsula separating the Gulf of Mexico from the G.I.W.W. has been reduced to a very thin area of low lying land. Any given tropical storm is capable of inundating this area and filling the G.I.W.W. in with sand and debris. In addition, a breach of the G.I.W.W. would sacrifice our environmental objectives as the present coastal barriers serve to protect shoreline ecology. A permanent breach of the protective barrier would result in closure of the canal until the breach could be repaired.

This is clearly a situation where prevention will be much more economical than the attempted cure after a breach has already occurred. Because of the clay foundation in the Sargent Beach area, any damage sustained by storm or erosion may well be permanent.

The Gulf Intracoastal Waterway is critical to my company from a supply and distribution standpoint. It is critical to south Texas and the nation as an artery of commerce.

Please support the Corps of Engineers' agenda by making this a top priority for navigation projects and funding. The Corps must be encouraged to move forward as quickly as possible to avoid an unfortunate future disaster for the G.I.W.W.

Sincerely,

Peggy Wallace

Peggy Wallace
TRANS MARKETING HOUSTON, INC.
Operations Manager

PW/cm

5200 REPUBLICBANK CENTER
700 LOUISIANA STREET
HOUSTON, TEXAS 77002 USA

REMARKS BY
THE HONORABLE STEVE GUNDERSON, M.C.
BEFORE THE HOUSE SUBCOMMITTEE
ON WATER RESOURCES
MARCH 22, 1990

Mr. Chairman, I would like to thank you for allowing me this opportunity to ask the subcommittee to consider an issue of great importance to me -- the extension for two years of authorization of the Upper Mississippi River Environmental Management Act.

Since being elected to Congress in 1980, I have been involved in fashioning a multi-purpose upper Mississippi River management plan -- one that balances navigational and environmental interests. In 1986, legislation which I introduced was approved as part of the Water Resources Development Act. Section 1103 of Public Law 99-662 is now known as the Upper Mississippi River Management Act of 1986.

Since that time, my efforts necessarily have turned to ensuring that adequate and balanced funding is available for the program. In the first three fiscal years of the program, the Upper Mississippi River System Environmental Management Program (EMP) has been appropriated $27.5 million. Its authorization for these three years, however, was $55.3 million. This fiscal year's budget proposes appropriations of $14.9 million, roughly 24 percent short of authorized funding of $19.5 million.

When we enacted the Upper Mississippi River Management Act in 1986, Congress intended for the environmental and navigational elements of the program to proceed in parallel fashion. However, while the EMP has been appropriated at 49.7% of its authorized rate, the major navigational element of the program -- the Second Lock at Lock and Dam 26 in Alton, Illinois -- has proceeded at 88% of its construction estimate. In fact, over the past two years, the Second Lock has been fully appropriated.

Today, Mr. Chairman, I am pushing legislation to extend the amounts authorized for the EMP for an additional two years without increasing the total amounts authorized. In this way, the authorized but unappropriated funds will not be lost. My legislation authorizes for each of fiscal year 1998 and 1999 (the eleventh and twelfth years of the EMP) one half the aggregate of the difference between the amounts authorized for the program for each of the preceding ten fiscal years and the amount appropriated for the program for such preceding ten fiscal years.

In the 100th Congress, I introduced legislation -- HR 3649 -- to extend the EMP for one additional year. At the time, however, I did note in my statement of introduction that it was likely by the end of the ten-year program more funds would be caught by this mechanism than could effectively be used in any one fiscal year. Therefore, I stated that in future years I would review the legislation and add further years to the authority of the environmental program if needed. The product of my first review of HR 3649 and the current authorization and appropriation picture is the legislation which I have introduced.

I urge this subcommittee to consider this legislation, HR 184, requesting the extension of the Upper Mississippi River Management Act. This legislation is in keeping with the intent of Congress when it adopted Section 1103 of the Water Resources Development Act of 1986. That intent, maintaining a balanced management of the upper Mississippi River system, as critical as it is to our region, will not be followed if the Act is allowed to expire in 1997.

Thank you again Mr Chairman for your willingness to consider this legislation. I look forward to working with you and the members of the Committee on the issue this year.

STATEMENT OF
RALPH M. HALL, M.C.
TO THE SUBCOMMITTEE ON WATER RESOURCES
IN SUPPORT OF H. R. 2894

MR. CHAIRMAN: Thank you for the opportunity to submit this statement for the record in support of amending the City of Denison's contract for water storage allocation at Denison Dam/Lake Texoma in the State of Texas.

Back in 1953, when Denison Dam at Lake Texoma was completed, the City of Denison acquired 21,300 acre-feet of water storage rights in the Lake for municipal and industrial water supply. The City agreed to pay $13,000 a year for fifty years for this storage, and has done so in a timely fashion.

Since that time, Congress has passed legislation that would make local interests in reservoirs, which had been paid for over a specific period of years, a permanent right. However, the original language of the Denison agreement for storage restricts the yield of the 21,300 acre-feet of storage to 13,000 acre-feet annually. The bill that I have introduced, H.R. 2894, would remove this limiting language and allow the City of Denison to more effectively operate its water facilities.

In discussions with the U. S. Army Corps of Engineers, it appears that the Corps needs the legislative authority to make the appropriate changes in Denison's allocation contract. Let me also stress that the allocation to other purposes of the Lake will not be changed. My bill is only changing the permitted yield of Denison's storage to accurately reflect the annual yield of the city's storage allocation.

Based on these developments, Mr. Chairman, I respectfully request the Water Resources Subcommittee to modify Denison's contract.

I would also like to include in the record a letter from the City of Denison in support of this legislation.

Thank you.

City of Denison
108 W. Main
Denison, Texas 75020-0347
(214) 465-2720

March 6, 1990

The Honorable Ralph Hall
U. S. Representative
4th District of Texas
236 Cannon House Office Building
Washington, D.C. 20515-4303

Dear Congressman Hall:

On behalf of the elected officials and the citizens of Denison, Texas, we respectfully request that the following be submitted to the subcommittee in support of H. R. 2894.

Shortly after the completion of Denison Dam for Lake Texoma, the City of Denison negotiated for and received an allocation of 21,300 acre-feet of storage of water in the Lake for municipal and industrial water supply. Such allocation was approved 14 August 1953 (67 STAT. 583). On 31 August 1953, the City and the U. S. Army Corps of Engineers executed an agreement which, among other things, required Denison to pay for its share of the storage in fifty (50) equal annual installments of $13,000.00. Thereafter, Congress enacted legislation codified at 43 U.S.C. 390e providing that State and local interests in reservoirs which have been paid over a specific period of years shall become a permanent right.

The City of Denison has initiated the process with the Corps of Engineers to provide, by agreement, for its permanent storage rights in Lake Texoma. However, in the original legislation and agreement for the Denison storage there is limiting language which confines the yield of the 21,300 acre-feet of storage to 13,000 acre-feet annually. H.R. 2894 which was introduced by Congressman Hall will remove the limiting language on the yield.

The U. S. Army Corps of Engineers agrees that the annual yield of 21,300 acre-feet of storage is 21,300 acre-feet of water. Denison's allocation is not being changed. The allocation to other purposes of the Lake is not being changed. Only the

a city with a future

permitted yield of Denison's storage for which it has paid and is paying is being changed to accurately reflect the annual yield of the City's storage allocation.

Thank you for your assistance.

Sincerely,

Larry Cruise

Larry Cruise
City Manager

LC:wc

STATEMENT OF
RALPH M. HALL, M. C.
TO THE SUBCOMMITTEE ON WATER RESOURCES
IN SUPPORT OF H. R. 2895

MR. CHAIRMAN: Thank you for the opportunity to submit this statement for the record in support of continuing the work begun on the East Fork of the Trinity River in Texas.

On July 13, 1989, I introduced H. R. 2895 which would continue the authorization of a project for flood protection on the East Fork of the Trinity River, Texas, which was previously authorized by section 203 of the Flood Control Act of 1962. This project is necessary to complete the final segment of the channelization of the East Fork. This section is known as Increment II of Public Law 87-874, which was to expire on December 31,_1989.

Increments I and III were completed by the Army Corps of Engineers in a timely and appropriate manner. Increment II was not completed because of insufficient local sponsorship to provide the federal government with the required share of costs. However, because of the massive flooding that occurred in that area in May of 1989, there has been a significant rise in local interest for the completion of this important project. The bill that I am supporting would keep the authorization for this plan alive long enough for the land owners and members of the Kaufman County Levee Improvement District No. 15 to assemble enough support to cover their share of the costs.

There are quite a few reasons why this project needs to be finished. The most important one is the control of the flooding that occurs as the result of periodic heavy rains and as the result of the release of excess water from Lake Ray Hubbard, which is only 10.8 miles upstream. This flooding, like the kind that occurred in May of 1989, causes the destruction of the levees that protect valuable farmland, as well as ruining the crops, livestock and housing on these lands. This destruction can be easily prevented by completing the channelization of the river so that it can efficiently handle the periodic increases in water flow.

The completion of the Increment II project would also provide a solution to the water quality problems in the Trinity River. The Environmental Protection Agency, the Texas Water Commission and other state and local agencies are concerned about the quality of the water that not only affects the surrounding environment and wildlife, but also the residents downstream who use this water for drinking purposes. The main cause of this problem is the disposal of sewage from the upstream areas of Garland and Mesquite. However, the winding path of the river through dense growth and woods causes inefficient water flow. As the man-made pollution makes its way downstream, it stagnates and the river becomes a foul bed of sewage, polluting wildlife and causing fish-kill. By channeling the river, an efficient flow of water would be established which would alleviate the back-up of water that occurs with heavy rains or heavy discharges from Lake Ray Hubbard and Lake Lavon, as well as preventing sewage to collect along the banks when the river is at normal levels, and thus reduce the pollution of the environment affected by the river.

It is apparent that the East Fork section of the Trinity River which has been left unfinished in terms of the total channelization project that was started more than twenty years ago is a weak link in a system that affects many people. By completing the project, the land around this area would be safe from flooding, and the polluted, swampy wastelands could be reclaimed for more productive use, as well as providing a cleaner environment for wildlife. Upstream, Lake Ray Hubbard and Lake Lavon would have more freedom to discharge water without flooding and damaging areas downstream and therefore be able to operate more effectively. Downstream, the residents who depend on the lakes and the Trinity river as a source of drinking water will have a better quality of water.

For these reasons, the Army Corps of Engineers and the officials at Lake Ray Hubbard, Lake Lavon, Lake Linvingston, as well as the cities that are served by these water sources, favor reauthorization of Channelization of the East Fork of the Trinity River under "Increment II" of PL 87-874. The benefits of channelization are also recognized by the E.P.A., the Texas Water Commission and the North Texas Municipal Water District. But most importantly the landowners in the East Fork need the completion of this project so that they may productively operate these lands without the fear of floods.

I would also like to include in the record a statement by the President of the Kaufman County Levee Improvement District No. 15.

Based on these conclusions, Mr. Chairman, I respectfully request the Water Resources Subcommittee to include this project with appropriate authorizations in the water resources legislation you will propose.

Kaufman County Levee
Improvement District No. 15
16818 Dallas Parkway
Dallas, TX 75248

March 1, 1990

The Honorable Henry J. Nowak, Chairman
Subcommittee on Water Resources
Committee on Public Works and Transportation
United States House of Representatives
Washington, D.C. 20515

Re: Subcommittee Hearing Scheduled for March 7, 1990

Dear Representative Nowak:

We are writing to encourage the subcommittee to include the provisions of H.R. Bill 2895 (dated July 13, 1989) introduced by Cong. Ralph Hall, and supported by Cong. Steve Bartlett and Senators Gramm and Bentsen. It is very important that these provisions be included in the extension of the life of Public Law 87-874 from (expiration on) December 31, 1989 to December 31, 1994.

The provisions would enable the completion of the final segment of the channelization of the East Fork of the Trinity river which would render the river safe and under control.

There is considerable local interest in completing this project. Extensive damage to many family farms caused by heaving flooding in May of 1989 resulted in the loss of crops, livestock, housing and livlihood. Channelization would eliminate the possibility of this disaster occurring again.

In addition to the water-control benefit, there would be environmental advantages to this channelization. Currently, several towns' sewage plants along the East Fork of the Trinity River are dumping partially treated sewage into the river. When this sewage mixes with the trash dumped by irresponsible citizens (which becomes tangled in the natural river bank vegetation and woodlands), it produces smelly, swampy areas which are not only aesthetically offensive but a detriment to the environment, wildlife and general beauty of the river. Channelization would certainly improve this situation.

The Honorable Henry J. Nowak
March 1, 1990
Page 2

The majority of the local sponsors and local/county governments have been contacted and are willing to do their part.

Please include this request in the Hearing Record.

Thank you for your attention to this matter.

Sincerely,

Robert E. Tang

Robert E. Tang
President

March 7, 1990

DELAWARE US ROUTE 13 RELIEF ROUTE
BRIDGE
OVER THE FEDERAL CHESAPEAKE AND DELAWARE CANAL

TESTIMONY OF KERMIT JUSTICE
SECRETARY OF TRANSPORTATION, STATE OF DELAWARE
BEFORE
THE SUBCOMMITTEE ON WATER RESOURCES
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
UNITED STATES HOUSE OF REPRESENTATIVES

Mr. Chairman and members of the subcommittee, I thank you for the opportunity to appear before you today.

I am Kermit Justice, Secretary of Transportation, State of Delaware.

I am here to present the views of the government of the State of Delaware regarding the responsibility for providing public highway bridges over the federal Chesapeake and Delaware canal in general, and specifically for a new bridge needed now to carry the traffic of the US Route 13 Relief Route now under construction by my department at an estimated cost of $400 million in State funds.

As you know, the Chesapeake and Delaware Canal cuts completely across the DelMarVa Peninsula, severing Delaware border to border.

The Delaware Department of Transportation is now constructing a limited access highway to carry the traffic of the presently overloaded US Route 13, the main north-south traffic corridor in Delaware, and indeed in the three-state DelMarVa Peninsula. This highway has been planned and sited under Federal Highway Administration procedures, and the final EIS for the project, including the bridge, has been filed and approved by the FHWA.

The present US Route 13 bridge over the C&D canal at St. George's Delaware, built 50 years ago by the Corps of Engineers, is incapable of being modified to carry the traffic in this corridor.

Because the Corps of Engineers had no money to do so, the Delaware Department of Transportation has designed a new bridge to US Department of Transportation and Corps of Engineers standards - so we could keep it on schedule. The bridge and necessary approaches will cost $111.5 million.

We were surprised last year to find that the Corps of Engineers had made no provision to budget for construction of the bridge, nor had they acquainted the Congress with the need for it.

Recognizing the press of time, schedule, and pressure on the Federal budget, the State of Delaware has offered to finance and build the bridge ourselves and lease it to the Corps on completion at a rent to recover our cost of construction, debt service, and operation and maintenance.

Though this postpones first Federal outlays until FY 1994 or 1995, we do need this year a Federal commitment to make those lease payments or we fear the Corps may not meet its obligation.

Indeed the Corps has advanced the argument that they have no obligation to provide public highway bridges over the C&D Canal despite having done so for 70 years under the leadership of this Committee.

Our discussions in Washington over the last year have made it clear to us that leadership by this Committee is critical to Federal action on this vital issue. We believe that the other concerned Federal interests are willing to act if you point the way by initiating legislation.

Therefore, the State of Delaware is asking this Subcommittee to begin the legislative process of:

- restating the intent of the Federal Government to meet its responsibility to the people of Delaware to build and maintain good and sufficient bridges over the C&D canal, at no cost to the State, to meet the needs of public highway traffic, and
- making it clear that the army Corps of Engineers has the necessary authority to provide such bridges, including the new US Route 13 Relief Route bridge.

Attached is a draft of the legislation we would suggest.

The State of Delaware believes that the Federal Government is responsible for providing bridges over the C&D Canal for reasons of legal history, equity, and good faith. Let me outline those reasons briefly.

Legal history: The first C&D canal was built by a private company chartered and franchised by specific laws of Delaware and Maryland. Recognizing that the canal would cut Delaware completely in two, border to border, the State law required the company to provide, without cost to the state, good and sufficient bridges to enable public road traffic to cross the canal without inconvenience.

In the charter law, the State reserved the right to enact laws regarding bridges that would be binding on the company.

In 1919, pursuant to Federal law, the Federal Government acquired the rights, property, and franchises of the company. The franchise included the obligation to the State of Delaware to provide bridges. The Federal Government was not authorized to, nor did it, acquire from the State a release from that obligation. In effect, the Federal Government acquired the canal, the contract of the canal company with the State of Delaware, and the contractual obligation of the company to provide bridges over the canal for the Delaware public roads.

For 70 years, under the leadership of this Committee, the Federal Government has met that obligation to provide good and sufficient public highway bridges over the C&D canal. Federal witnesses before this Committee have stated that obligation, and resulting laws originated in this Committee have repeatedly acted upon it by providing additional bridge capacity, and by requiring waivers of the obligation if alternative amenities were provided in lieu of bridges.

Only in the last year has the Corps of Engineers attempted to deny that the obligation exists.

The State of Delaware indeed believes that the Federal obligation remains. I would like to submit for the record supporting documentation prepared by the Delaware Attorney General and by the Senate Judiciary Committee.

Equity: The C&D Canal was taken over and enlarged by the Federal Government to provide national economic benefits and to improve the national security. Though Delaware shares in the general national security benefit, almost none of the economic benefits accrue in Delaware. Indeed, the primary function of the C&D canal is to provide a shortcut for ocean and coastal shipping through Delaware Bay to the port of Baltimore, Maryland.

In order to provide for navigation, bridges over the C&D Canal are now required to provide a clear span across a 450 foot wide channel, and to be at least 140 feet above the water. Site selection for new bridges, that ultimately determines the cost of approaches, is governed by Federal highway planning and environmental law.

The Route 13 bridge and approaches, designed and sited to Federal standards, will cost $111.5 Million.

It would not be equitable for the Federal Government to require Delaware to pay the high cost of connecting its highways across this canal - that was originally fast land requiring no bridges at all - in order to provide national economic benefits that accrue almost entirely out of State.

Good faith: The arrangement between the Federal Government and the State of Delaware was entered into voluntarily and in good faith by both parties. The State of Delaware consented by law to the Federal acquisition of the canal with the expectation that good and sufficient bridges would be provided at no cost to the State. The record indicates that the Federal Government shared that expectation at the time of takeover.

The recognition of that obligation is documented in the legal reports submitted for the record. Under legislation reported by this committee, C&D canal bridges have in fact been replaced with added traffic capacity at three locations in Delaware.

The Federal Government has recognized and met its contractual obligation to the State of Delaware for the past 70 years.

Maintaining good faith with the State requires that the Federal Government not unilaterally decide that bridges will no longer be a Federal responsibility, and requires that the Federal Government not now claim that such an obligation never did exist - as the Corps of Engineers has attempted to do.

I believe that this Committee, that has legislative jurisdiction over the C&D canal,

- does recognize the Federal obligation to the State of Delaware,
- never intended to place this huge obstacle across all north-south highways in Delaware without making provision for necessary bridges,
- and will not want the Federal Government to break faith with the State of Delaware

I hope you will help to set the record straight with appropriate legislation as the State requests.

I will say in closing that this is an urgent matter. Our traffic projections, prepared under Federal Highway Administration procedures, indicate that the present Route 13 bridge will be overloaded by 1994. It carries 33% of the total traffic flow in and out of the Peninsula, and 60% of the traffic across the C&D canal. It carries as much traffic per lane as the Chesapeake Bay Bridge at Annapolis. The State has already begun building the Relief Route. If traffic demands and the Relief Route construction schedule are to be met, construction of the new bridge must begin before the end of this calendar year.

Thank you.

Attachments:

A. Proposed Authorization Language
B. The need for Federal Funding, Jan. 29th, 1990
C. Legal Documentation (**With original only**)
    - Senate Judiciary Committee Memoranda, June 20, 1989,
      Nov. 9, 1989, February 2, 1990
    - Delaware Attorney General Memoranda, Nov 16, 1989

February 22, 1990

ATTACHMENT A

March 7, 1990

PROPOSED LEGISLATION AUTHORIZING THE US ARMY CORPS OF ENGINEERS TO MEET THE OBLIGATION OF THE UNITED STATES TO PROVIDE PUBLIC HIGHWAY BRIDGES OVER THE CHESAPEAKE AND DELAWARE CANAL AT NO COST TO THE STATE OF DELAWARE

Bill language: It is the intent of Congress that the United States should continue to meet the obligation to the State of Delaware to provide, at no cost to the State, good and sufficient bridges over the Chesapeake and Delaware Canal to meet the needs of traffic on the Delaware public highways, as determined by the State, **provided that the State's determination is made after considering the results of highway planning procedures approved by the Federal Highway Administration.** The said obligation was part of the franchise of the Chesapeake and Delaware Canal Company previously established in Delaware law, and was assumed by the United States with the acquisition of the property and rights of the Company in 1919.

The Assistant Secretary of the Army for Civil Works, acting through the Chief of the Army Corps of Engineers, is authorized to provide such good and sufficient public highway bridges over the Chesapeake and Delaware Canal through construction or lease of facilities, modification of existing facilities, or such other means as may be mutually agreed upon by the Assistant Secretary and the State of Delaware.

Explanation: This provision restates the intent of the Congress to meet the obligation to the State of Delaware to provide good and sufficient bridges over the Chesapeake and Delaware Canal to meet the needs of traffic on the public highways of Delaware at no cost to the State, and provides permanent authorization to the Corps of Engineers to provide bridges through new construction, lease of facilities, modification of existing facilities, or other means mutually agreed upon by the Assistant Secretary of the Army for Civil Works and the State of Delaware.

It recognizes the right of the State under present law to determine the need for bridges, but conditions the exercise of that determination on the application of highway planning and siting procedures approved by the Federal Highway Administration.

Delaware law established the charter of the C&D Canal Company in 1801 requiring, as a condition of the right to build and operate a navigation canal that cuts the State completely in two, that the Company provide good and sufficient public highway bridges over the canal at no cost to the State, and reserving the right of the State to determine the conditions of compliance.

Pursuant to law, the United States acquired the property and franchises, including the rights and obligations, of the C&D Canal Company in 1919 for the purpose of enlarging the Canal and incorporating it into the Intracoastal Waterway System constructed and operated by the Army Corps of Engineers. Thus, the United States assumed the obligation to provide good and sufficient public highway bridges over the canal at no expense to the State of Delaware.

The present C&D Canal provides access for ocean shipping through Delaware Bay to Baltimore Maryland and other Chesapeake Bay points. It severs land transportation completely across the State of Delaware and the rest of the DelMarVa Peninsula.

To meet the needs of shipping, the United States now requires new highway bridges across the Canal to provide a clear span over a 450 foot wide channel 140 feet above the water. Site selection for new bridges, that ultimately determines the cost of approaches, is controlled by Federally established highway planning and environmental procedures.

For the above reasons, it is appropriate that the Federal Government pay the cost of public highway bridges over the C&D Canal that the State has determined to be needed through the application of highway planning procedures approved by the Federal Highway Administration.

The State of Delaware is now constructing a limited access highway at the cost of $400 million in State funds to meet the expanding traffic needs in the US Route 13 corridor. As an integral part of the Federally approved planning process for the US Route 13 Corridor, the State has also determined the need for a new bridge to carry the traffic over the C&D Canal. The State Transportation Department is prepared to finance and build the new bridge and approaches, estimated to cost $111.5 million, and has offered to lease the new facilities to the Corps of Engineers as a means of recouping the costs of construction, debt service, operation, and maintenance.

This provision recognizes the authority of the Army to lease the bridge to be constructed by the State of Delaware, and provides authority to the Army to construct, modify, lease, or otherwise provide facilities in the future to meet the obligation of the United States to the State of Delaware for public highway crossings over the C&D Canal.

January 29, 1990

DELAWARE U.S. ROUTE 13 RELIEF ROUTE BRIDGE OVER THE CHESAPEAKE AND DELAWARE CANAL

The need for Federal Funding

- The Delaware US Route 13 Relief Route project
  - Is a 46-mile 4-lane limited access highway from Delaware Route 7 to Road 30 south of Dover (partially toll).
  - Includes a new bridge over the C&D Canal funded by the Corps of Engineers (free - non-toll).
  - Will cost $503 million, including $112 million for the bridge.
  - Has been planned by the Delaware Department of Transportation in conjunction with the U.S. Department of Transportation. All environmental planning complete - including final EIS.
  - Has been started at southern end. Bridge will be ready to start construction in 1990.
  - Must be completed as soon as possible to meet traffic demands on U.S. Route 13 corridor, the main north-south route in Delaware, and before the existing St. George's bridge carrying Rt. 13 is partly closed for rehabilitation.
- The Federal Government (Corps of Engineers) is responsible for funding the new bridge because:
  - Original Delaware law chartering C&D Canal Company required company to construct and maintain bridges at its expense, as determined by the State.
  - Federal acquisition of Canal Company franchise and property for the Corps of Engineers in 1919 included acceptance of company legal obligations to the State of Delaware.
  - Specific recognition of Federal responsibility to provide bridges is contained in subsequent Federal law and administrative records, most recently in the Surface Transportation and Uniform Relocation Act of 1987, directing the Corps to review relevant documents to determine how best to provide a new structure for this project.
  - Federal Government has met the contractual obligation to construct and maintain public road bridges continuously since taking over the Canal, through construction and maintenance of two generations of highway bridges with expanded traffic capacity.

- The project, including the new bridge, has not gone through the traditional Corps of Engineers planning process because:

  . In 1984, when Delaware began planning the U.S. Route 13 Relief Route, the Corps had no funds to plan the project and forecast delays of up to 20 years of the traditional Corps process were followed.

  . It is appropriate for the Delaware Department of Transportation and the Federal Highway Administration to conduct the planning on this highway corridor because:

    -- The U.S. Route 13 Corridor is the primary north-south highway route in the State.

    -- The Federal bridge is one element in a much more complex State and Peninsula highway traffic problem.

    -- The State is the proper entity to deal with the intra-State technical, economic, and political decisions on location of main highways, siting and design of interchanges, etc.

- We must obtain Federal bridge funding commitment now because:

  . Traffic in the corridor is already backing up unacceptably, and our USDOT-approved projections demonstrate critical traffic increases in the near future requiring more highway lanes of crossing capacity than provided by all existing C&D Canal bridges in Delaware.

  . The new highway is already under construction.

  . The existing Federal St. George's Bridge cannot be modified to handle the traffic of the new highway.

  . The State cannot stand to have half of the present St. George's bridge capacity on Rt. 13 shut down for rehabilitation before the U.S. Route 13 Relief Route bridge is opened.

  . If the State builds the new bridge without Federal commitment to pay its costs, then the longstanding principle of Federal contractual responsibility for highway crossings of the Federal C&D Canal (that cuts the State completely in two) will certainly lapse.

Attachments:
A. Legal background
B. The traffic story - Why the bridge is needed now
C. 1939 Letter
D. Map

January 29, 1989

DELAWARE U.S. ROUTE 13 RELIEF ROUTE BRIDGE OVER THE CHESAPEAKE & DELAWARE CANAL

The Legal Background For the Federal Obligation

The United States Government is legally obligated to pay the cost of construction and maintenance of a new highway bridge, with its approaches, over the Chesapeake and Delaware Canal. This bridge is an integral part of the ongoing Delaware project to increase the traffic carrying capacity of the U.S. Route 13 corridor, the primary North-South traffic route in the State and the entire DelMarVa Peninsula.

- **The original Delaware Charter of the C&D Canal Company required the company to provide bridges at its expense and reserved the right of the State to require the construction of new bridges.**
  - The relevant language of the Act of the Delaware Legislature incorporating the Company reads, "...whenever said canal shall cross any public road, it shall be the duty of said company, at the proper expense of the same, to make and keep good and sufficient bridges across the said canal so as to prevent any inconveniences in the usages of said road or roads by reason of said canal crossing the same, and that it shall be lawful for the legislature of this State to enact laws for the erecting and maintaining bridges across said canal, at the expense of the said company...."
- **When the Federal Government acquired the Canal Company property for the purpose of enlarging the canal, it assumed the obligations of the Canal Company to the State of Delaware.**
  - When the property of the C&D Canal Company was acquired by the Federal Government by condemnation proceedings, the law required acquisition of, "...the existing Chesapeake and Delaware Canal and all the property, rights of property, franchises, and appurtenances used or acquired for use in connection therewith or appertaining thereto...."
  - The property acquired by the Federal Government included the bridges built by the Company.
  - The franchise acquired by the Federal Government included the obligations to the State assumed by the Company in consideration of its enfranchisement by the State - including the obligation to provide sufficient bridges.
  - The obligation was recognized in the legislative history of the acquisition in which Congress imposed the condition that, "all land traffic, both highway and rail, to and from the DelMarVa Peninsula.....could not be broken."

Federal abandonment of certain existing and authorized C&D Canal crossings in Maryland in 1927 and 1930 was conditioned by law upon advance agreement by Maryland authorities releasing the United States from its obligation to provide the crossings and acceptance of alternative projects in lieu thereof. The legislative background of these actions makes clear that the Federal Government wanted to abandon the crossings but recognized the compelling legal responsibility to provide them. (See Hearings before the Committee on Rivers and Harbors, House of Representatives, 69th Congress, First Session," pp. 39-42.)

- The State of Delaware successfully demonstrated in the legislative history of Acts authorizing the construction of Federal bridges over the C&D Canal, and appropriating funds therefor, that the Federal Government was legally bound to fund the entire cost of bridges and approaches because it assumed the obligations of the Canal Company in 1919. The position of the State was never disputed by the Congress and the full costs were in fact paid by the Federal Government. (See the letter of October 12, 1953, from the Honorable J. Caleb Boggs, Governor of Delaware, to the Honorable Robert T. Stevens, Secretary of the Army, and subsequent provisions of the River and Harbor Act of 1954.)

- The Federal Government recognized its obligation most recently in the Surface Transportation and Uniform Relocation Assistance Act of 1987 wherein the Corps of Engineers was instructed to review the planning done by the State of Delaware along with other reports to determine how best to modify the C&D Canal project to provide a new canal crossing for the Delaware U.S. 13 Relief Route project.

- **The Federal Government has paid for C&D all Canal highway bridges for the entire history of the Federal Canal.**

  - The Report of the Secretary of War on which authorization of the C&D Canal was based listed the highway bridges necessary to carry public road traffic over the canal, and all those constructed were at full Federal expense.

  - All but one of the original bascule bridges constructed by the Corps of Engineers have been replaced with more modern bridges at full Federal expense, most with added traffic capacity (including 4 new lanes, 2 on each of 2 bridges), pursuant to specific authorizing legislation.

Because the Federal C&D Canal cuts completely across the State of Delaware, and because the primary traffic carried by the Canal both originates and terminates outside the State, it is only fair that the cost of bridging the canal continue to be borne by the Federal Government, at the schedule needed by the State and the entire DelMarVa Peninsula.

It is appropriate that the Federal Government accept the Delaware Department of Transportation planning (including scheduling) as a basis of funding the bridge because the planning has been fully participated in and approved by the U.S. Department of Transportation and other Federal agencies.

- The traffic counts and projections demonstrating the need for additional Canal crossing capacity were done in accordance with the U.S. Department of Transportation procedures.
- The location planning, including selection from among alternative sites, was done in accordance with U.S. Department of Transportation procedures and approved by the U.S. DOT.
- The environmental planning was done in keeping with National Environmental Policy Act Federally mandated procedures for highway location, with the final Environmental Impact Statement done in cooperation with the Corps of Engineers, the U.S. Environmental Protection Agency, and the U.S. Coast Guard, and approved by the U.S. DOT.
- All engineering design is being done to standards recognized and accepted by the U.S. DOT.

January 29, 1990

DELAWARE U.S. ROUTE 13 RELIEF ROUTE BRIDGE OVER THE CHESAPEAKE & DELAWARE CANAL

Need for an Additional Bridge

An additional highway bridge crossing the Chesapeake and Delaware Canal near the present St. George's Bridge in Delaware is necessary even if there were no Route 13 Relief Route planned, because total traffic projected for the near future in the major north south traffic corridors cannot be handled by the existing bridges.

- The U.S. Route 13 corridor is the primary north-south route between major Eastern population centers and the Delmarva Peninsula containing parts of 3 states (Del., Md., and Va.).
- The St. George's bridge is the U.S. Route 13 crossing over the Chesapeake and Delaware Canal.
    - The St. George's Bridge carries 33% of the total traffic flow into and out of the Peninsula - 37,300 Average Annual Daily Transits, 17% of which is commercial trucking.
    - It carries as much traffic per lane as the Chesapeake Bay Bridge.
    - It carries over 60% of the total traffic over the C&D Canal.
- The St. George's Bridge will be overloaded after 1994 according to traffic projections deemed valid by the Federal Highway Administration.
    - 1994 traffic is projected at 45,000 AADT (the practical limit of the existing bridge) at a rate of increase well below that actually observed over the last 15 years.
    - Traffic at the St. George's Bridge Site is projected at 70,000 AADT by 2010.
    - These projections were developed under the U.S. DOT-approved process specified for highway planning by the Federal Highway Administration.

- The existing St. George's bridge cannot be modified to handle the projected traffic because it is 50 years old, in need of rehabilitation, and not designed to current standards.
  - The steep grade, curvature of the bridge, and lack of shoulders make expansion to move more traffic safely impractical.
  - Basic design of the bridge makes it vulnerable to failure in Canal navigational accidents.
    - Piers supporting the main tied arch span with its fracture critical beam are located in the Canal.
    - Failure of the fracture critical beam would mean loss of the entire structure.
- The Summit Bridge cannot handle the U.S. Route 13 overload because traffic on its Northeast-Southwest corridor will reach bridge capacity in the near future.
  - Summit is located on the most direct route between the Delaware Bay Bridge and the Eastern end of the Chesapeake Bay Bridge.
  - Daily traffic on Summit of 15,000 AADT will increase rapidly when the 4-lane approaches currently under construction are completed in 1991.
  - Summit cannot safely pass the St. George's projected overload after 1994 in addition to its own traffic.
- The additional Delaware bridges over the C&D Canal are unable to handle the U.S. Route 13 overload in any practical manner because of location, approach, and capacity conditions.

The Delaware Department of Transportation, using U.S. DOT-approved traffic planning procedures and National Environmental Policy Act procedures throughout a 5-year planning effort, has determined that the most practical solution to the U.S. Route 13 overload problem is the Relief Route project including the new bridge near the present St. George's Bridge site.

BRIDGE ACROSS THE CHESAPEAKE & DELAWARE CANAL

War Department,
Washington, July 6, 1939.

Hon. Josiah W. Bailey,
Chairman, Committee on Commerce,
United States Senate, Washington, D. C.

Dear Senator Bailey: The Department refers to your letter dated June 9, 1939, enclosing a copy of S. 2574, Seventy-sixth Congress, first session, entitled "A bill authorizing the construction of a highway bridge across the Chesapeake and Delaware Canal at St. Georges, Del.", and requesting such suggestions as may be deemed proper touching the merits of the bill and the propriety of its passage.

On January 10, 1939, the highway bridge spanning the Chesapeake and Delaware Canal at St. Georges, about 15 miles south of Wilmington, Del., was struck and demolished by the steamship *Waukegan*. The Chesapeake and Delaware Canal was purchased by the Federal Government under authority of an act of Congress approved March 2, 1919, and with it the United States assumed the obligation of continuing highway crossings over the canal at various localities. The bridge at St. Georges afforded one of these crossings. It was of the vertical-lift type and provided a two-lane roadway for land traffic. Destruction of this bridge severed communication between the two sections of the town of St. Georges, and it was necessary to provide ferry service.

Senate bill 2574 proposes to authorize and direct the War Department to construct a four-lane high-level fixed highway bridge in replacement of the destroyed bridge. It is estimated that such a bridge with a suitable sidewalk on both sides and affording ample clearances for water traffic can be constructed for not to exceed $2,400,000.

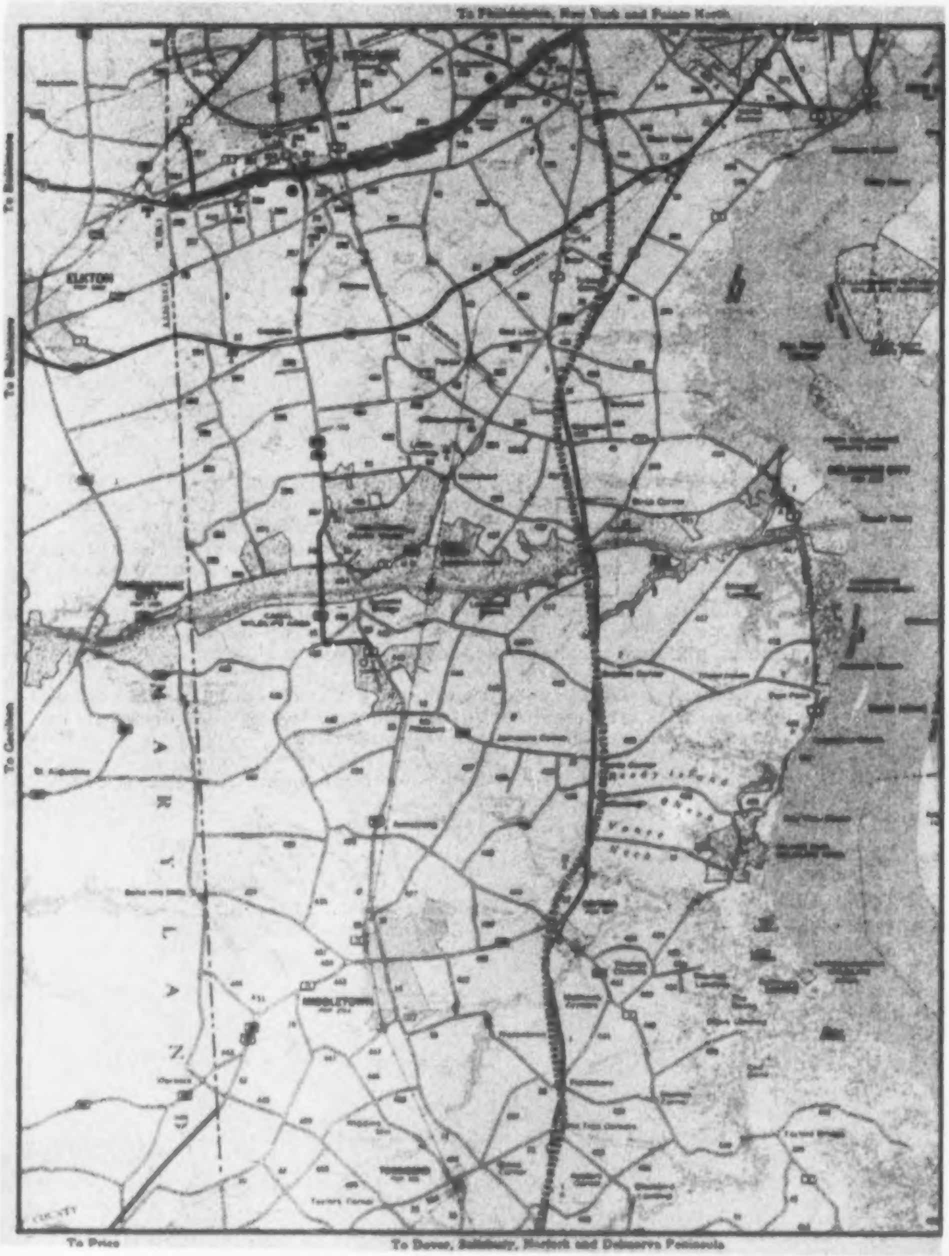
The United States is obligated to maintain reasonably adequate highway crossings over the canal. A four-lane high-level fixed highway bridge would provide such a crossing at St. Georges and I recommend favorable consideration by Congress of S. 2574.

To insure immediate construction of the bridge, a suggested change to the bill has been indicated in red thereon.

The Bureau of the Budget advises that there is no objection to the submission of this report.

Sincerely yours,

Harry H. Woodring,
Secretary of War.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ELKTON
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United States Senate
COMMITTEE ON THE JUDICIARY
WASHINGTON, DC 20510-6275

June 23, 1989

The Honorable Robert W. Page
Assistant Secretary
Office of Civil Works
Department of the Army
Washington, D.C. 20310

Dear Mr. Page:

At our meeting of June 13, 1989, we agreed that I would provide you with a legal memorandum on the duty of the Army Corps of Engineers to build and maintain bridges at the St. Georges crossing of the C & D Canal. Enclosed is a memorandum on that issue drafted by the Senate Judiciary Committee staff.

I believe this research makes clear the legal obligation of the corps to improve the existing crossing at St. Georges in the manner proposed by the State of Delaware.

In order to facilitate Congress's timely consideration of our proposal, it is necessary for you to review and comment on the enclosed memorandum as soon as possible.

I thank you in advance for your continued cooperation.

Sincerely,

Joe Biden

Joseph R. Biden, Jr.
Chairman

Enclosure

TO: Senator
FROM: Scott Schell
DATE: June 20, 1989
RE: St. Georges Bridge

I. QUESTION PRESENTED

When the United States exercised its powers of eminent domain to acquire the property, rights of property, franchises, and appurtenances of the Chesapeake and Delaware Canal in 1919, did the federal government become obligated to maintain adequate crossings over the canal?

II. SUMMARY OF ARGUMENT

- The property transferred to the United States as a result of condemnation proceedings initiated to acquire the C & D Canal included not merely the waterway itself, but also the franchise obligation to maintain adequate crossings over the canal.

- In testimony given to Congress at the time the original plan for renovating the canal was implemented, the Chief of the Army Corps of Engineers unequivocally stated that, as a result of these historical obligations, the United States had become legally bound to maintain adequate canal crossings.

- The bridges maintained by the United States must be sufficient to handle the flow of traffic produced by the highways they service.

- Efforts by the Corps of Engineers to evade its obligation to maintain adequate crossings over the canal have been turned back in the past.

- Considerations of fairness require the United States to abide by the 160-year-old precedent that has obligated each operator of the canal to maintain adequate crossings.

III. STATEMENT OF FACTS

By an Act of the General Assembly of Delaware dated January 28, 1801, the Chesapeake and Delaware Canal Company was chartered to build and operate a canal between the Delaware River and Chesapeake Bay. In exchange for the right to operate the proposed canal, including the right to collect tolls for its use, the C & D Canal Company became obligated to maintain canal crossings.

In 1919, the United States excercised its powers of eminent domain to take possession of the C & D Canal. As a result, the obligations that the State of Delaware had imposed upon the C & D Canal Company in 1801 were transferred to the new owner of the canal -- the United States.

The portion of the 1801 Act setting forth the obligation of the C & D Canal Company to maintain adequate crossings over the canal states:

> That whenever said canal shall cross any public road, it shall be the duty of said company, at the proper expence of the same, to **make and keep good and sufficient bridges** across the said canal, so as to **prevent any inconvenience**, in the usage of said road or roads by reason of said canal crossing the same.... (Emphasis added.)

IV. ARGUMENT

A. The property transferred to the United States as a result of condemnation proceedings initiated to acquire the C & D Canal included not merely the waterway itself, but also the franchise obligation to maintain adequate crossings over the canal.

The documents governing the obligations incurred by the United States when it takes property pursuant to its powers of eminent domain are: (1) the judicially approved petition for condemnation; and (2) the legislation appropriating the funds necessary to compensate the owners of the condemned property. Commissioners of Highways v. United States, 466 F. Supp. 745 (N.D. Ill. 1979), aff'd in part and rev'd in part, 653 F.2d 292 (7th Cir. 1981). In the case of the condemnation of the C & D Canal, the relevant documents clearly state that in addition to acquiring the physical assets of the waterway, the United States also took possession of the longstanding franchise obligations governing the canal.

1. The Controlling Language

In an Act of Congress approved August 8, 1917, entitled "An Act Making Appropriations for the Construction, Repair and Preservation of Certain Public Works on Rivers and Harbors" (the 1917 Appropriations Bill), Congress authorized the Secretary of War to begin negotiating a contract for the purchase of the C & D Canal. In the event these negotiations proved unsuccessful, the Secretary of War was authorized to initiate condemnation proceedings for the canal. Two years later, after contract negotiations had reached an impasse, a second appropriations bill (the 1919 Appropriations Bill) provided $2,514,289 to be paid as compensation for the taking of the canal.

Each of these appropriations bills identified the property being condemned as follows:

> **the existing Chesapeake and Delaware Canal, and all the property, rights of property, franchises and appurtenances used or acquired for use in connection therewith or appertaining thereto.** (Emphasis added.)

The petition for condemnation filed by the United States embodied terms that had been agreed to by the private owners of the canal, and was uncontested. On August 8, 1919, after a *pro forma* oral argument and a jury verdict ratifying the negotiated price for just compensation, the United States District Court for the District of Delaware approved the United States' condemnation petition.

The second paragraph of the United States' petition begins with the descriptive language quoted above. Because the petition was filed prior to the enactment of the 1919 Appropriations Bill, the language identifying the condemned property was attributed only to the Appropriations Bill of 1917. The United States Attorney for Deleware recognized, however, that the 1919 Act, and the accompanying description of the property to be condemned, were sufficiently important to merit an amendment to the original petition. Accordingly, Congress' description of the condemned property, referring to the franchises pertaining to the canal, was included for a second time in the United States' petition. Clearly, the United States understood that the property it was condemning included the franchise obligations governing the canal.

The United States acknowledged that its understanding was shared by the Delaware legislature. In the sixth paragraph of its petition, the United States set forth the following language from a Delaware Law approved on March 26, 1909:

> That the consent of the [Delaware] Legislature be and the same is hereby given to the acquisition by the United States of the title to the lands, easements and franchises of the Chesapeake and Delaware Canal Company. (Emphasis added.)

2. Supreme Court Precedent

The significance of these repeated references to the United States' acquisition of the C & D Canal franchise were not lost on the interested parties. A contemporary Supreme Court case involving the United States' condemnation of a lock and dam in Pennsylvania, Monongahela Navigation Company v. United States, 148 U.S. 312 (1892), addressed the very issue of condemning property with accompanying franchise rights. In rejecting the United States' argument that a condemnation proceeding could be used to sever a franchise from the physical property it governs, the Court stated:

> The theory of the government seems to be, that the right of the Navigation Company to have its property in the river, and the franchises given by the State to take tolls for the use thereof, are conditional only, and that whenever the government, in the excercise of its supreme power, assumes control of the river, it destroys both the right of the company to have its property there, and the franchise to take tolls. But this is a misconception. **The franchise is a vested right.**

148 U.S. 312 at 341 (emphasis added).

B. In testimony given to Congress at the time the original plan for renovating the canal was implemented, the Chief of the Army Corps of Engineers unequivocally stated that the United States had become legally bound to maintain adequate crossings over the canal.

In an exchange with members of the House Committee on Rivers and Harbors at a 1926 hearing, Major General Harry Taylor, Chief of the Army Corps of Engineers, acknowledged that the Corps was legally bound to maintain crossings over the C & D Canal. The following portions of General Taylor's testimony concern the United States' obligation to build a bridge over the C & D Canal at a crossing in Maryland. Maryland officials had agreed to release the Corps of Engineers from its obligation in exchange for newly built roads that would connect a highway to a nearby bridge already in existence. In order to explain the basis for this quid pro quo, General Taylor attested to the legal force behind the United States' duty to build bridges over the canal. His comments are remarkable for both their candor and their pertinence to the issue addressed by this memorandum.

THE CHAIRMAN. At any rate, the people of the vicinity are absolutely satisfied and they make this bargain to release the Government by its doing this work instead of rebuilding the bridge?

MR. McDUFFIE (a committee member). Somebody might ask, "Why is the Government in duty bound to do this work?

THE CHAIRMAN. I asked that legal question to begin with. I said, "Then, it is the established law and the establshed practice of the Government, where it is deepening a stream and there are bridges over the stream as it is when the Government takes it and deepens it and necessitates rebuilding of the bridges, that the Government must rebuild those bridges?"

GENERAL TAYLOR. May I make a little correction there? This was not a case of a bridge over a natural stream, but a bridge over the Chesapeake & Delaware Canal, and where the bridge was built was originally fast land. There was no water at all until the canal went through there. But the road was there even before the Chesapeake & Delaware Canal was built, so that the private canal, as it was before we took it over, had to build the original bridge. It was fast land, and they dug this cut through fast land, and they were obliged to build the original bridge, and we took over all their obligations. So we are obliged to build a new bridge.

* * * * *

MR. McDUFFIE. What would happen if the Government refused to build the bridge?

GENERAL TAYLOR. The Government would be sued and would be forced by the courts to build it.

THE CHAIRMAN. Either mandamused, or they would get a judgment for the amount.

GENERAL TAYLOR. Yes, sir.

MR. McDUFFIE. In other words, there is no way of our getting out of building it.

GENERAL TAYLOR. Absolutely none.

Hearings on H.R. 11176 Before the House Committee on Rivers and Harbors, March 1926, at pp. 40-42.

General Taylor's first comment followed a question by the Chairman concerning the existence of a generalized legal obligation on the part of the United States to rebuild bridges damaged or destroyed by federal construction projects. General Taylor felt compelled to correct the premise for the Chairman's question. Instead of basing his statement on an established regulation generally applicable to all situations like the one in question, General Taylor pointedly referred to the nexus between the specific obligations of the C & D Canal Company and those acquired by the United States.

The dialogue on this point between General Taylor and the committee concluded with the following exchange:

> GENERAL TAYLOR. There is another bridge being built, and we built about a mile and a half of road on each side to get to this bridge. I contended for a long time that the bridges were so close together that there was no necessity for this bridge, but, unfortunately, I didn't have any legal basis to stand on.
>
> THE CHAIRMAN. To use an ordinary expression, which we hear frequently, they "had the law on you?"
>
> GENERAL TAYLOR. Yes, sir; they had the law on us.

The "law" that the people of Maryland "had on" the Army Corps of Engineers was a Maryland statute chartering the C & D Canal Company that was virtually identical to that enacted by the State of Delaware. It must be noted that the individual advancing this argument was not the Attorney General for the State of Maryland, nor any other advocate seeking to hold the United States responsible for the funding of bridges over the C & D Canal. At the time of his testimony, General Taylor was the Chief of the Army Corps of Engineers, the very entity responsible for carrying out the federal government's obligation to build and maintain bridges.

The hearing from which the above testimony was quoted was held in 1926. General Taylor's interpretation of the United States' responsibilities took place just seven years after the condemnation proceedings -- in close enough proximity to have the original intent of the federal government fresh in the minds of the interested parties. The source of the obligations being discussed was much older: a 125-year-old statute enacted in 1801. The rationale understood by the Chief of the Corps of Engineers as the basis for the United States' recently acquired obligations was not temporally limited. It is as relevant today as it was in 1926.

C. The bridges maintained by the United States must be sufficient to handle the flow of traffic produced by the highways they service.

General Taylor's testimony addressed more than the question of whether the United States acquired obligations as a result of its condemnation of the canal. By identifying the source of those obligations, the testimony provided by General Taylor defined their scope as well.

When asked about the legal obligations binding upon the United States, General Taylor replied: "[The C & D Canal Company was] obliged to build the original bridge, and **we took over all their obligations.** So we are obliged to build a new bridge." (Emphasis added.) Primary among the obligations set forth in the Delaware Law of 1801 granting the company its charter was the duty "to make and keep good and sufficient bridges across the said canal, **so as to prevent any inconvenience, in the usage of said road or roads.**" (Emphasis added.) Clearly, the United States' obligations with regard to canal crossings include the duty to maintain bridges that match the demands created by the highways and localities at the places where crossings of the canal previously existed.

The extent of the United States' obligation to maintain adequate crossings became evident in a dispute between Governor Boggs of Delaware and the Chief of the Army Corps of Engineers during the review of the Corps' plans to renovate the canal in 1954. The State of Delaware contended that the federal government was responsible for the funding of bridge approaches that connected existing highways. The Corps of Engineers asserted that this responsibility was Delaware's.

In support of his position, Governor Boggs sent a letter to the Secretary of the Army in which he quoted the statutory language -- "to make and keep good and sufficient bridges...to prevent any inconvenience" -- that is the source of the United States' obligation to maintain adequate crossings over the C & D Canal.

In the River and Harbor Act of 1954, Congress required the Corps of Engineers to build the disputed bridge approaches. To do less would fall short of the United States' legal obligation acquired at the time of the condemnation. Likewise, failure to expand the capacity of an existing bridge, so that it is sufficient to carry the traffic produced by the state's highways, also would constitute a breach of the United States' duty to build and maintain "sufficient bridges...to prevent any inconvenience in the usage of said road or roads."

In the past, the Corps of Engineers has taken into account the need to alleviate highway traffic congestion when deciding whether to build new bridges. In a section of his report identifying the benefits of the proposed 1954 renovation project, the Corps' District Engineer stated:

> The provision of fixed-span high-level bridges for the highway crossings at Reedy Point and at Summit, as proposed, would eliminate the delays to vehicular traffic that are imposed when lift-span bridges are opened to vessel movements.

Report of the District Engineer, Senate Rep. 123, 83rd Congress, May 19, 1954, at 29.

D. Efforts by the Corps of Engineers to evade its obligation to maintain adequate crossings over the canal have been turned back in the past.

In less than three decades, General Taylor's successors at the Corps of Engineers developed a changed attitude to the United States' obligation to maintain crossings over the C & D Canal. Studies for the improvement of the canal conducted by the Corps of Engineers in the early 1950's indicated that the leaders of the Corps had lost much of their predecessor's sensitivity to the significance of the obligations acquired by the United States. This became most apparent with regard to the rebuilding of a bridge at Reedy Point, Delaware.

By 1953, the Corps of Engineers had developed new plans to widen, deepen and generally improve the canal. If the canal crossing at Reedy Point were to be maintained after this proposed construction, the existing draw bridge would have to be replaced by a high-level fixed bridge. Among the plans proposed by the Corps was the option of eliminating the crossing at Reedy Point and providing connecting roads to the St. Georges bridge from the highways that had been serviced by the bridge at Reedy Point.

In a letter from the Under Secretary of Commerce, the Assistant Chief of the Army Corps of Engineers was reminded that elimination of the crossing at Reedy Point would violate legal obligations acquired by the United States at the time the canal was condemned:

> With regard to the Reedy Point Bridge, however, the Chief of Engineers states that it is not considered that the cost of a new high-level bridge can be justified by the needs of traffic nor of the locality and recommends that at the time of construction of the project consideration be given to provide more economical alternate facilities

> to meet the needs of the Reedy Point area....While we concur in the recommendations of the Chief of Engineers concerning the Reedy Point Bridge attention is called to the fact that **when the Federal Government originally acquired the Chesapeake and Delaware Canals from private ownership it took over all the property, rights of propety, franchises, and appurtenances which included the bridges at Reedy Point, St. Georges, and Summit in the State of Delaware and thus the Federal Government is legally obligated to provide crossings of the canal at the location of the original bridges.**

Comments of the Department of Commerce, Senate Doc. 123, 83rd Congress, May 19, 1954, at XX (emphasis added).

Despite the ultimate recommendation of the Corps of Engineers to explore the option of eliminating the Reedy Point bridge, the Corps itself had acknowleged its duty to maintain an adequate crossing at Reedy Point. The 1950 report of the Corps' District Engineer stated:

> Recognizing certain rights of the public to highway crossings at Reedy Point and Summit, the United States bore the entire cost of constructing bridges at these points when the canal was converted to a sea-level waterway, and subsequently has borne the entire cost of their operation and maintenance. The rights of the public to these crossings are as valid at this time as when the existing bridges were constructed; their continuance appears to be warranted by the volume and importance of the traffic that they carry.

Report of the District Engineer, Senate Doc. 123, 83rd Congress, May 19, 1954, at 34.

In the River and Harbor Act of 1954, Congress provided the funding necessary to build a new high-level bridge at Reedy Point and the bridge was constructed by the Corps of Engineers.

E. Considerations of fairness require the United States to abide by the 160-year-old precedent that has obligated each operator of the canal to maintain adequate crossings.

The original C & D Canal was completed in 1829. As General Taylor remarked, the canal was cut through "fast land" -- land where no waterway previously existed. To preserve the important north-south arteries, that even then carried traffic crucial to the commerce and recreation of the State, the Delaware Legislature had the foresight to subordinate the interests of the canal to those of land traffic.

Today, Delaware's highway system plays an even more critical role in the life of the State, while the federally operated canal provides no significant independent benefit for the people of Delaware. Nonetheless, the canal does serve national transportation interests and the federal government chooses to continue operating it for that reason.

Every operator of the canal has borne the justifiable burden of maintaining bridges so that Delaware's land traffic would not be obstructed. The fairness of having the United States incur this obligation is now more apparent than ever; the alternative would require the State of Delaware to spend large sums of money for bridges that cross a canal from which it receives little benefit.

JOSEPH R. BIDEN, JR., DELAWARE, CHAIRMAN

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United States Senate

COMMITTEE ON THE JUDICIARY
WASHINGTON, DC 20510-6275

MEMORANDUM

TO: Senator Joseph R. Biden, Jr., Chairman
FROM: Scott Schell, Counsel
DATE: November 9, 1989
RE: St. Georges Bridge

In response to Senator Biden's instructions, the Senate Judiciary Committee staff prepared a memorandum examining the legal basis for the United States' obligations regarding the C & D Canal. That memorandum, transmitted to the Army on June 23, 1989, concludes that the United States is bound by the same obligations as its predecessor, the C & D Canal Company.

On July 20, 1989, the Assistant Secretary of the Army transmitted to Senator Biden a memorandum of the General Counsel of the Army that argues against the conclusion reached in the Judiciary Committee's memorandum.

The following sets forth the Judiciary Committee staff's review of the Army's memorandum and a further discussion of the legal background of the case.

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I. SUMMARY

The law enacted in 1801 by the State of Delaware that chartered the C & D Canal Company established binding contractual obligations. Those obligations are defined by the language of the charter. The Supreme Court has long recognized the validity of contractual obligations growing out of corporate charters.

In a case decided in 1923 by the United States District Court for the District of Delaware, the court decided that the United States is bound by obligations originating in the charter of the C & D Canal Company. The court reasoned that the United States' condemnation of the C & D Canal Company neither invalidated the 1801 charter, nor rescinded the obligations it established. Today, these same contractual obligations continue to bind the United States.

By wrongly defining the issue to be addressed, the Army's memorandum is limited to a discussion of the duties imposed upon the Army Corps of Engineers by authorizing legislation. The Army ignores the source of the United States' contractual obligations -- the Delaware law chartering the C & D Canal Company. Because the Army looks in the wrong place for its answer, its memorandum is limited to asking and answering questions that can lead only to inaccurate or irrelevant conclusions.

II. DISCUSSION

A. THE UNITED STATES IS BOUND BY A CONTRACTUAL OBLIGATION TO MAINTAIN GOOD AND SUFFICIENT BRIDGES OVER THE C & D CANAL

The charter of the C & D Canal Company established contractual obligations that were binding upon the canal company and that continue to bind the United States. This position is supported by both the language of the charter and Supreme Court precedent -- the most authoritative factual and legal sources relevant to this matter.

1. THE DELAWARE LAW CHARTERING THE C & D CANAL COMPANY WAS BASED UPON A MUTUAL EXCHANGE OF RIGHTS AND OBLIGATIONS AND CONSTITUTES A CONTRACT.

In 1801, the State of Delaware chartered the C & D Canal Company and authorized the chartered corporation to construct a canal crossing the state. This written grant formalized a contractual relationship. At the core of this relationship was an exchange of consideration -- the quid pro quo that is the basis of all contracts.

The State of Delaware granted to the C & D Canal Company the charter that allowed the corporation's existence, the real estate necessary for construction of the canal, and the right to collect state-regulated tolls for the canal's use. In exchange for this grant, the C & D Canal Company constructed the canal and was obligated to maintain it in good repair.

The State of Delaware obtained only one significant, independent interest in the canal project. The C & D Canal completely separates northern and southern Delaware. To overcome this interference with the commerce of the state, the charter obligated the C & D Canal Company

> "to make and keep good and sufficient bridges across the said canal, so as to prevent any inconvenience, in the usage of said road or roads by reason of said canal crossing the same." (Act of the General Assembly of Delaware, January 29, 1801 (Laws of Delaware, Vol. III, 170, 185).)

By the express terms of the written charter, the operator of the canal was made responsible for preserving the unimpeded flow of the state's important north-south land traffic.

Any doubt as to the binding nature of this obligation imposed upon the operator of the canal is erased by the enforcement provision set forth in the Delaware law. That provision makes the operator of the canal responsible for funding the construction of bridges deemed necessary by the state as long as the canal is in existence:

> "[I]t shall be lawful for the Legislature of the State, at all times hereafter, to enact laws for the erecting and maintaining bridges across the said canal, at the expence [sic] of the said company, and to subject the said company to forfeitures, pains and penalties for not complying with such laws." (Id. at 185.)

2. THE SUPREME COURT HAS HELD ON NUMEROUS OCCASIONS THAT THE GRANT OF A CORPORATE CHARTER BY A STATE GIVES RISE TO CONTRACTUAL OBLIGATIONS.

Dartmouth College v. Woodward, 4 Wheat. 518 (1819), is a landmark case in which Chief Justice John Marshall interpreted the "contract clause" of the Constitution. (United States Constitution, Art. I, Sec. 10, cl. 1.) The case involved a corporate charter granted to Dartmouth College. Before discussing whether the contract clause of the Constitution was applicable to the case at hand, Chief Justice Marshall first held that the charters of private corporations are, indeed, to be considered contracts:

> "It can require no argument to prove, that the circumstances of this case constitute a contract. An application is made to the [state] for a charter to incorporate a religious and literary institution. In the application, it is stated that large contributions have been made for the object, which will be conferred on the corporation, as soon as it shall be created. The charter is granted, and on its faith the property is conveyed. Surely in this transaction every ingredient of a complete and legitimate contract is to be found." (Id. at 627.)

The Supreme Court attested to the significance of the holding of Dartmouth College in The Binghamton Bridge, 3 Wall. 51 (1865). This case involved a charter of the State of New York incorporating a company to build a tollbridge and take tolls fixed by the charter. The case considered the binding effect of the charter's prohibition against the construction of any bridge within two miles either above or below the chartered bridge. In upholding the validity of the prohibition, the Court relied upon Dartmouth College:

> "We have supposed, if anything was settled by an unbroken course of decisions in the Federal and State courts, it was, that an act of incorporation was a contract between the State and the stockholders. All courts at this day are estopped from questioning the doctrine....An attempt even to reaffirm it, could only tend to lessen its force and obligation. It received its ablest exposition in the case of Dartmouth College v. Woodward, which case has ever since been considered a landmark by the profession, and no court has since disregarded the doctrine, that the charters of private corporations are contracts." (Id. at 73.)

The relationship between the State of Delaware and the C & D Canal Company, and the consideration exchanged by each party, are called to mind by the Supreme Court's description of the charter at issue in The Binghamton Bridge:

> "The legislature, therefore, says to public-spirited citizens: "If you will embark, with your time, money, and skill, in an enterprise which will accomodate the public necessities, we will grant to you, for a limited period, or in perpetuity, privileges that will justify the expenditure of your money, and the employment of your time and skill." Such a grant is a contract, with mutual considerations, and justice and good policy alike require that the protection of the law should be assured to it." (Id. at 74.)

B. THE CONTRACTUAL OBLIGATIONS ESTABLISHED BY THE CHARTER OF THE C & D CANAL COMPANY HAVE AS MUCH FORCE TODAY AS WHEN THEY WERE FIRST CREATED.

1. THE OBLIGATION TO BUILD AND MAINTAIN BRIDGES OVER THE C & D CANAL HAS NOT BEEN RESCINDED.

The State of Delaware has never invalidated the law allowing for the construction and operation of the C & D Canal. Until such legislative action is taken, or a similar circumstance arises that abrogates the obligations established by the charter, those duties continue to exist with full force.

In Dartmouth College, Chief Justice Marshall, referring to the corporate charter granted to the college, provided the following question and answer:

> "What has since occurred to strip it of its inviolability? Circumstances have not changed it. In reason, in justice, and in law, it is now what it was in 1769." (4 Wheat. at 643.)

Chief Justice Marshall decided that the validity of the charter and the obligations it imposed remained unchanged. The decision was reached notwithstanding the presence of circumstances that differed significantly from those existing at the time the corporate charter in question was granted: fifty years had passed, the Revolutionary War had been fought, New Hampshire had been transformed from a colony to one of the states in a previously non-existent republic, and, of greatest concern in the case before Chief Justice Marshall, the original parties to the charter had been replaced by successors.

The charter in Dartmouth College, established in 1769, recorded the contractual relationship between the donors of the college, on the one hand, and the British Crown, on the other. The adversaries in the case before the Supreme Court were the State of New Hampshire, as the successor to the Crown and Government of Great Britain, and the trustees of the college, as successors to the donors. The Supreme Court found that the contractual relationship continued in force between these successors in interest.

Although many years have passed since the State of Delaware chartered the C & D Canal Company and enacted the law governing the operation of the canal, the circumstances concerning the canal have changed very little. The canal continues to be operated at roughly the same location where it was initially constructed. The continued unimpeded flow of land traffic over the canal is of greater and more pressing concern to the state today than it was in 1801. And Delaware continues to have an interest in enforcing the obligations owed by the operator of the canal to the people of the state. Only the operator of the canal has changed. This neither justifies nor requires the invalidation of the contractual duties established by the charter.

2. A FEDERAL COURT HAS HELD THAT THE UNITED STATES IS BOUND BY THE OBLIGATIONS OF THE C & D CANAL COMPANY.

Delaware Railroad Company v. Weeks, 293 F. 114 (Del. 1923), concerned a railroad bridge over the C & D Canal that was going to be destroyed as a result of the United States' plan to improve and enlarge the canal. The Delaware Railroad Company, the owner of the bridge, had been chartered by the State of Delaware in 1836 and had been granted a right-of-way over the canal. At issue was "whether the [railroad was] divested of that interest [in a bridge] by the condemnation proceedings through which the United States acquired title to the canal properties." (Id. at 117.)

The railroad claimed that, like the C & D Canal Company, the United States was obligated to honor the interests of the railroad. The United States District Court for the District of Delaware agreed:

> "Title to the property of the Chesapeake & Delaware Canal Company was acquired in 1919 by condemnation proceedings had in this court....The answer of the [United States] seems to indicate the [United States'] position to be that the railroad company was divested of its right of way by the condemnation proceedings....I...hold...that the United States acquired the canal property subject to the burthen of the railroad and that, merely as owner, the rights of the United States in the canal property are with respect to the bridge, its piers and abutments not greater than or different from those of the canal company during its ownership. (Id. at 119.)

In effect, the Delaware District Court had been presented with the same question faced by Chief Justice Marshall: "What has since occurred to strip [the charter] of its inviolability?" The answer: nothing.

The same reasoning of Chief Justice Marshall and the Delaware District Court is applicable here. Nothing has changed to alter the obligations of the C & D Canal Company or its successor. Just like the Delaware District Court decided that the United States' condemnation of the C & D Canal Company neither invalidated the charter, nor rescinded the obligations it established, so, too, the United States remains obligated today to maintain good and sufficient bridges across the canal. "In reason, in justice, and in law, [the charter] is now what it was in [1801]."

C. THE ARGUMENTS SET FORTH IN THE MEMORANDUM OF THE GENERAL COUNSEL OF THE ARMY ARE WRONG AND IGNORE THE BASIS OF THE UNITED STATES' OBLIGATION.

The Army's arguments lack credibility. First, by wrongly defining the issue to be addressed, the Army's memorandum is limited to asking and answering questions that can lead only to inaccurate or irrelevant conclusions. Second, the Army ignores the very source of the United States' contractual obligations. Third, the Army's erroneous approach results in a mischaracterization of the testimony of General Taylor, the Chief of the Army Corps of Engineers -- arguably the most significant legislative history concerning this matter.

1. THE ARMY WRONGLY DEFINES THE ISSUE AT HAND.

The Army has defined the issue as "whether the Federal Government is obligated...by virtue of the legislation authorizing the purchase and improvement of the original C & D Canal," (Army Mem. at 1), and has concluded that the authorizing legislation imposed no general obligation on the United States to build bridges across the canal. Put simply, the Army has answered the wrong question.

The Army has ignored the question of the continued validity of the charter of the C & D Canal Company. The possibility that the obligations set forth in the charter are now binding upon the United States is not considered. The Army never addresses the effect of the condemnation proceedings on the obligations owed by the canal company to the people of Delaware. Rather than contradicting the position set forth in this memorandum, the Army's argument is unresponsive.

2. THE ARMY'S EXCLUSIVE RELIANCE ON AUTHORIZING LEGISLATION IGNORES THE SOURCE OF THE UNITED STATES' CONTRACTUAL OBLIGATIONS.

The fact that the United States is obligated to provide canal crossings is completely independent of the question of whether the Army Corps has been directed by Congress to be the agent for exercising some or all of this federal obligation. Rather than limiting the extent of the United States' obligations, the authorizing legislation merely executes, in part, the pre-existing obligations of the C & D Canal Company that were transferred to the United States.

Even if the Army's interpretation of the authorizing legislation were correct, that interpretation would not require the conclusion reached by the Army. As the United States District Court indicated in Delaware Railroad Company v. Weeks, the source of the United States' obligation to build bridges across the canal is the canal company charter -- not authorizing legislation. The extent of the United States' obligation is defined by the charter. In its authorizing legislation, Congress has directed the Army Corps, as the agent of the United States, to partially implement an underlying contractual obligation of the United States. An examination of the relevant authorizing legislation will reveal only those specific tasks that have been discharged by the Army Corps of Engineers in the past. To answer the question of the scope of the United States' obligation, for purposes of determining what is necessary for future compliance, the charter is controlling.

3. THE ARMY MISCHARACTERIZES THE TESTIMONY OF GENERAL TAYLOR.

In an exchange with members of the House Committee on Rivers and Harbors at a 1926 hearing, Major General Harry Taylor, Chief of the Army Corps of Engineers, testified that the United States was contractually obligated to maintain crossings over the C & D Canal.

At issue was whether Congress should authorize the Corps to construct certain roads in lieu of building a bridge over the canal. General Taylor testified that the authorization of the roads was necessary in order for the Army Corps to comply with an agreement that had been entered into with local authorities. According to the agreement, the local government would release the United States from its obligation to build the bridge in exchange for the construction of the specified roads.

The memorandum of the Army acknowledges the United States' obligation to construct the bridge in question. However, according to the Army, the source of the United States' obligation is congressional authorizing legislation. While consistent with the general theory of the Army's memorandum, this conclusion is not supported by General Taylor's testimony. That testimony clearly identifies the obligation of the C & D Canal Company as the source of the United States' duty to build the bridge:

> THE CHAIRMAN. At any rate, the people of the vicinity are absolutely satisfied and they make this bargain to relaease the Government by its doing this work instead of rebuilding the bridge?
>
> MR. McDUFFIE (a committee member). Somebody might ask, "Why is the Government in duty bound to do this work?
>
> THE CHAIRMAN. I asked that legal question to begin with. I said, "Then, it is the established law and the established practice of the Government, where it is deepening a stream and there are bridges over the stream as it is when the Government takes it and deepens it and necessitates rebuilding of the bridges, that the Government must rebuild those bridges?"
>
> GENERAL TAYLOR. May I make a little correction there? This was not a case of a bridge over a natural stream, but a bridge over the Chesapeake & Delaware Canal, and where the bridge was built was originally fast land....[T]he private canal, as it was before we took it over, had to build the original bridge. It was fast land, and they dug this cut through fast land, and they were obliged to build the original bridge, and we took over all their obligations. So we are obliged to build a new bridge.

* * * * *

MR. McDUFFIE. What would happen if the government refused to build the bridge?

GENERAL TAYLOR. The Government would be sued and would be forced by the courts to build it.

(Hearings on H.R. 11176 Before the Committee on Rivers and Harbors, 69th Cong., 1st Sess. 40-42 (1926).)

The Army's claim that "when General Taylor's complete statement is examined, it becomes clear that the basis of the obligation to build the...bridge was the 1917 authorization," (Army Mem. at 5), is clearly erroneous. Nowhere in General Taylor's testimony did he say that the United States' obligation was derived from an authorizing bill. General Taylor unequivocally stated: "[The C & D Canal Company was] obliged to build the original bridge, and [the United States] took over all their obligations. So [the United States is] obliged to build a new bridge."

In addition, General Taylor testified that this obligation of the United States was enforceable in court. The possibility of a lawsuit requiring construction of the bridge in question was the reason the Army Corps felt compelled to obtain an agreement absolving the United States of any responsibility for building the bridge. Congress subsequently authorized the roads and, by the same law, conditioned their construction on the execution by local authorities of a waiver of the federal obligation to build the bridge.

The mere presence of legislation authorizing the Army Corps to undertake a construction project does not create a right in local authorities to compel the completion of that project through a lawsuit. Only a pre-existing contractual obligation could give rise to the judicial remedy identified by General Taylor. If the Army's position is adopted, and the description of projects in authorizing legislation provides the basis for lawsuits by local governments, then the United States would be subject to extensive liabilities that have no precedent in the law.

General Taylor's testimony supports the position that the United States is bound by contractual obligations that originated with the charter of the C & D Canal Company and continued in effect after the United States acquired that company in 1919.

D. THE UNITED STATES HAS TRIED AND FAILED TO EVADE ITS OBLIGATION CONCERNING THE C & D CANAL IN THE PAST.

In 1953, the Corps of Engineers developed a plan to improve the C & D Canal that would require the destruction of a bridge at Reedy Point, Delaware. The Army Corps had suggested to Congress that the Reedy Point bridge be eliminated because the cost of rebuilding the bridge could not be justified by the traffic needs at that location. Despite this proposal, the United States ultimately was compelled to build the bridge and the funding was provided. In this case, the contractual obligations binding the United States clearly trumped any authorizing legislation.

According to the Army's memorandum, the United States was under no obligation to rebuild the Reedy Point bridge a second time. The Army argues that the original project authorization defined the extent of the United States' responsibilities with regard to the canal, and "the original project authorization provided limited authority to rebuild, on a one-time basis, seven bridges." (Army Mem. at 4.)

The Army's position is contradicted by the following letter from the Under Secretary of Commerce to the Assistant Chief of the Army Corps of Engineers:

> While we concur in the recommendation of the Chief of Engineers concerning the Reedy Point Bridge attention is called to the fact that when the Federal Government originally acquired the Chesapeake and Delaware Canals from private ownership it took over all the property, rights of property, franchises, and appurtenances which included the bridges at Reedy Point, St. Georges, and Summit in the State of Delaware and thus the Federal Government is legally obligated to provide crossings of the canal at the location of the original bridges. (Sen. Doc. No. 123, 83rd Cong., 2d Sess. 20 (1954).)

Clearly, there was no discretion in the decision to build the bridge at Reedy Point. The Army Corps had recommended against building the bridge. Funding for the bridge was perceived to be an unnecessary federal expenditure. Yet the authorization and the funds were provided, and the bridge was built.

Because the obligations originating in the charter of the C & D Canal Company continue to bind the United States, the Under Secretary of Commerce properly concluded that, "the Federal Government is legally obligated to provide crossings of the canal at the location of the original bridges."

E. THE UNITED STATES' OBLIGATION TO MAINTAIN GOOD AND SUFFICIENT BRIDGES PERTAINS TO THE CANAL CROSSING AT ST. GEORGES.

In a letter dated July 6, 1939 from Harry H. Woodring, Secretary of War, to the Chairman of the Senate Commerce Committee, Mr. Woodring responded to a request for comments on the propriety of a proposed bill authorizing the construction of a new highway bridge across the C & D Canal at St. Georges.

Mr. Woodring recommended passage of the bill and construction of the bridge. He asserted that the "United States is obligated to maintain reasonably adequate highway crossings over the canal." His letter states, in part:

> "On January 10, 1939, the highway bridge spanning the Chesapeake and Delaware Canal at St. Georges...was struck and demolished by the steamship Waukegan. The Chesapeake and Delaware Canal was purchased by the Federal Government under authority of an act of Congress approved March 2, 1919, and with it the United States assumed the obligation of continuing highway crossings over the canal at various localities. The bridge at St. Georges afforded one of these crossings...
>
> The United States is obligated to maintain reasonably adequate highway crossings over the canal. A four-lane high-level fixed highway bridge would provide such a crossing at St. Georges and I recommend favorable consideration by Congress of S.2574."

STATE OF DELAWARE
DEPARTMENT OF JUSTICE
STATE OFFICE BUILDING
820 N. FRENCH STREET, 8TH FLOOR
WILMINGTON, DELAWARE 19801

CHARLES M. OBERLY, III
ATTORNEY GENERAL

DIRECT DIAL
571-2508

The Honorable Michael N. Castle
Governor of the State of Delaware
Carvel State Office Building
820 North French Street
Wilmington, DE 19801

Re: Obligation of the United States Department of the Army, Corps of Engineers, to Construct a New Bridge and Maintain and Repair the Existing Bridge Over the Chesapeake and Delaware Canal at St. Georges
Opinion No. 89-I022

Dear Governor Castle:

You have asked the following questions as they relate to the obligation of the United States Department of the Army, Corps of Engineers (hereinafter "Corps") to construct, maintain and repair bridges over the Chesapeake and Delaware Canal (hereinafter "Canal"):

1. Whether the Corps is obligated to maintain and repair the existing bridges over the Canal in a manner that provides minimal disruption to the flow of traffic; and

2. Whether the Corps assumed the obligation to provide good and sufficient bridges over the Canal, including the construction of new bridges where necessary.

For the reasons stated in the following opinion, we conclude that:

1. The Corps is obligated to maintain and repair the existing bridges over the Canal in a manner that provides minimal disruption to the flow of traffic and commerce; and

2. The Corps, by condemnation of the property of the Chesapeake and Delaware Canal Company, assumed the obligation to provide good and sufficient bridges over the Canal, including the construction of new bridges where necessary.

I. BACKGROUND

The Chesapeake and Delaware Canal Company ("Company") was incorporated by the State of Delaware by Act of the General Assembly of Delaware on January 29, 1801, 3 Del. Laws c. 78 at 170 (1801). Section 3 of the Act authorized the Company to take steps necessary to improve navigation between the Delaware River and the Chesapeake Bay, including the construction of canals and locks. 3 Del. Laws c. 78 at 174 (1801). Section 16 of that Act obligated the Company to "make and keep good and sufficient bridges across the Canal so as to prevent any inconvenience in the usages of said road or roads..." 3 Del. Laws c. 78 at 185 (1801). The State reserved for itself the right to determine the meaning of "good and sufficient" in that the State provided that "...it shall be lawful for the Legislature of this State, at all times hereafter, to enact laws for the erecting and maintaining bridges across said canal..." 3 Del. Laws c. 78 at 185 (1801). The Company was to bear the expense of such bridges. The Company constructed the Canal and, in Delaware, four (4) bridges. The current locations of the four bridges are: Summit, St. Georges, Reedy Point, and Fifth Street, Delaware City (which spans a branch canal).

In 1919 Congress authorized up to $2,514,289.70 to be paid as just compensation for the taking of "the existing Chesapeake and Delaware Canal and all the property, rights of property, franchises, and appurtenances used or acquired for use in connection therewith or appertaining thereto." Rivers and Harbors Appropriations Act of 1919, Pub. L. No. 65-323, 40 Stat. 1275, 1277 (1919). The Federal Government acquired the Company's (and its mortgagee's) interest in the Canal, including the franchises and appurtenances connected with the property, by condemnation in 1919 after negotiations for the purchase of the property were not successful. United States v. Chesapeake and Delaware Canal Company and Fidelity Trust Company, No. 5 Dec. Term 1918 (D.Del.). The property interests of the Company and their mortgagee, Fidelity Trust Company, were acquired by the United States for $2,514,289.70, the valuation found by the jury in the condemnation proceedings and the full amount authorized by Congress. No. 5 Dec. Term 1918, Morris, J. (D.Del., June 7, 1919 Order).

It is clear that the Corps recognized at least as early as 1894 that the public had a right of way over the Canal. H. Exec. Doc. 102, 53rd Cong., 3d Sess. (1894), p. 5; H. Exec. Doc. 102, p. 21; H. Exec. Doc. 103, 53rd Cong., 3d Sess. (1894), pp. 69, 87. The United States did not name the State of Delaware as a party to the condemnation proceedings or attempt to seek to condemn any right of way held by the public. Petition for Condemnation, No. 5 Dec. Term 1918. Therefore, the condemnation proceedings did not extinguish the right of way which the public has held since 1801. 3 Del. Laws c. 78 at 185 (1801).

After the condemnation proceedings, the Corps enlarged the Canal, and in the process replaced the bridges at the four (4) sites where bridges had already been in existence. The Corps has maintained bridges at these sites since the condemnation. The bridges have been modified, replaced and, in some cases, widened since the original construction.

The St. Georges Bridge was destroyed after a ship collided with the bridge in 1939. That same year Congress authorized the replacement of the destroyed two-lane drawbridge with a four-lane fixed-span bridge. Rivers and Harbors Act of 1939, Pub. L. No. 76-310, 53 Stat. 1240 (1939). The cost of the replacement bridge was borne entirely by the Federal Government. 53 Stat. 1240.

In 1954 Congress authorized the replacement through the expenditure of Federal funds of the Summit and Reedy Point drawbridges with fixed-span bridges. Rivers and Harbors Act of 1954, Pub. L. No. 83-780, 68 Stat. 1248, 1249 (1954). The cost of the replacement of the Summit and Reedy Point Bridges was also entirely borne by the Federal Government. 68 Stat. 1249. The two-lane Summit Bridge, which was a drawbridge was replaced with a four-lane fixed-span bridge. S. Doc. 123, 83rd Cong., 2d Sess. (1954) at x, xiv, xx, xxix, 34.

II. ASSUMPTION BY THE UNITED STATES AND THE CORPS OF THE COMPANY'S CONTRACTUAL OBLIGATION TO PROVIDE GOOD AND SUFFICIENT BRIDGES OVER THE CANAL

The United States and the Corps have an obligation to construct and maintain bridges so that commerce and transportation over the Canal will not be hindered. This obligation stems from both state and Federal law. In the Charter of the Company in 1801, the State granted property to construct and operate a canal and a franchise to collect tolls to the Company. 3 Del. Laws c. 78 at 178-183 (1801). In exchange, the Company was obligated to provide the State with a right of way across the Canal over good and sufficient bridges. 3 Del. Laws c. 78 at 185 (1801). The terms of the Charter constituted a contractual agreement between the State and the Company. The United States was aware of the State's right of way and included the cost of the replacement of the crossings in its estimates of the cost of upgrading the Canal. See, H. Exec. Doc. 103, 53rd Cong., 3d Sess. (1894), pp. 69, 87.

The United States, through the condemnation proceedings, voluntarily assumed the obligations of the Company to provide good and sufficient bridges across the Canal. 3 Del. Laws c. 78 at 185 (1801). In 1801, in granting the Charter to the Company, the State required the Canal Company to provide and maintain good and sufficient bridges over the Canal to avoid inconvénience to the traffic. 3 Del. Laws c. 78 at 185 (1801). The United States did not attempt to condemn the State's property interest in the right of way during the condemnation proceedings and continued to maintain the right of way after the condemnation.

Aware that the State had a right of way, the United States only attempted to condemn the property interests of the Company. Petition for Condemnation, No. 5 Dec. Term 1918. The interests of the Company were burdened by the State's easement, which was defined by the Charter of the Company as good and sufficient bridges to avoid inconveniance. 3 Del. Laws c. 78 at 185. The statute authorizing the condemnation only authorized the taking of "the existing Chesapeake and Delaware Canal and all the property, rights of property, franchises, and appurtenances used or acquired for use in connection therewith or appertaining thereto." Pub. L. 65-323, 40 Stat. 1277. This statutory authorization did not include the State's right of way among the property interests to be condemned and the value of that interest was not included in the appropriation. 40 Stat. 1277.

A railroad bridge also existed over the Canal at the time of the condemnation. The railroad's right of way was also not condemned by the United States in 1919 when it acquired the Canal property. Delaware R. Co. v. Weeks, 293 F. 114, 119 (D.Del. 1923). In Weeks, the United States District Court for the District of Delaware held that:

> the United States acquired the canal property subject to the burthen of the railroad and that, merely as owner, the rights of the United States in the canal property are with respect to the bridge, its piers and abutments not greater than or different from those of the canal company during its ownership.

293 F. at 119.

In eminent domain proceedings, the condemnor cannot take rights of property more extensive than the rights held by the condemnee. 1.27 Acres of Land v. State, Del. Supr., 262 A.2d 641 (1970); Thomison v. Hillcrest Athletic Ass'n, Del. Super., 5 A.2d 236 (1939); 3 Nichols on Eminent Domain, sec. 9.2[1] (Rev. 3d ed. 1985). As the Delaware Supreme Court stated in 1.27 Acres, "a condemnor may take only the amount of property and the quantum of estate or interest permitted by the statute." 262 A.2d at 642. The Delaware Superior Court has stated that "unless the Statute provides that a fee simple title shall be acquired, or a fee is necessary for the purposes for which the land is taken, that only an easement or qualified fee is taken by the Eminent Domain proceedings." Thomison, 5

A.2d at 238. As the statute only authorized the taking of the Company's property, the property acquired by the United States was the qualified fee which was subject to the State's easement. 40 Stat. 1277; 1.27 Acres; Thomison.

The Canal cuts the State in half and bridges over the Canal are the only means of access from one side of the State to the other. Therefore, the United States may have been unable to condemn the State's right of way. As the United States District Court for the District of New Jersey stated in a case involving the right of way of an adjoining property owner:

> The condemnor must leave an owner of land abutting a street with reasonable access to the highway for his purposes where he had access immediately prior to the condemnation.

United States v. Certain Land in State of New Jersey, 439 F.2d 670, 673 (1971). The issue of reasonable access is a question of fact. 439 F.2d at 673. However, as the bridges across the Canal are the only means of access across the Canal, which extends from Delaware City, Delaware, to Chesapeake City, Maryland, no other reasonable access across or around the Canal exists. Therefore, the State's right of way cannot be extinguished.

The Corps has indicated that it will take action by May of 1990 to repair the existing St. Georges Bridge by closing one lane each way for an estimated period of two years. The engineers in the Delaware Department of Transportation

("DelDOT") deny that it is necessary to close two lanes for the estimated two years. By letter dated October 17, 1989, John J. Gilbert, the Division Administrator for the Federal Highway Administration informed Lieutenant Colonel G. William Quinby, District Engineer in the Corps' Philadelphia, Pennsylvania office that the Federal Highway Administration supports the DelDOT proposal for repairs to the existing St. Georges Bridge. Mr. Gilbert stated the following position of the Federal Highway Administration in his letter:

> We are in complete agreement with the DelDOT proposal. Their recommended alternative (Alternate C) appears to be the most cost effective and least disruptive to the highway users. The extremely high user costs, associated with a project which would take much longer and require more extensive detour usage, could be minimized under DelDOT's recommended alternative.

The existing St. Georges Bridge accommodates a large flow of traffic over the Canal. The proposal by the Corps to shut down two of the four lanes for a two year period will substantially interfere with the flow of traffic and commerce. The closure of two lanes is not necessary, as less restrictive alternatives exist. Additionally, the closing of the two lanes is expected to detour much of the traffic to the remaining bridges and adjoining roads. Those bridges and roads were not built to handle this increased volume of traffic.

At this time the Corps has not agreed to have the various maintenance alternatives reviewed by an independent expert to determine whether a less restrictive alternative than closure of two lanes for two years can be selected. The Corps, by not agreeing to accept such independent review, violates the Corps' obligation to provide a minimal disruption to the traffic flow and interferes with the right of way over the Canal which the public holds. 3 Del. Laws c. 78 at 185 (1801); See, Report of Colonel Brown, supra.

The projections for the next several decades show the traffic demand for the use of the bridges over the Canal as increasing beyond the capacity of the existing bridges. Based upon the projections by the State Department of Transportation, the existing bridges at St. Georges, Summit, Reedy Point and Delaware City will not be able to accommodate the increases in traffic flow. The Department of Transportation estimates that the amount of traffic over the St. Georges Bridge will double by the year 2010. Additional lanes of traffic will be needed if the supply of canal crossings is to keep pace with the demand for such crossings by the public.

The plans for the U.S. Route 13 Relief Route have been approved by the Federal Highway Administration, which has the authority to establish a federal-aid highway system. 23 U.S.C. sec. 103. Federal funding for the establishment of the federal-aid highway system is authorized in 23 U.S.C. ch. 1.

The Federal Highway Administration approved the location of the St. Georges portion of the U.S. Route 13 Relief Route on July 22, 1987 and the design of that section on December 19, 1988. The Corps' reluctance to accept its responsibility for construction of sufficient Canal crossings interferes with the plans already approved by the Federal Highway Administration. The Route 13 Relief Route is already underway and its construction will be disrupted if the issue of the new bridge is not resolved.

The Corps, by legal memorandum dated July 20, 1989 prepared by the Office of General Counsel, Department of the Army, concluded that the Corps did not assume the obligations of the Company and is not obligated or authorized to construct a new bridge for the U.S. Route 13 Relief Route. Their position is inconsistent with their legal obligation to provide good and sufficient bridges so as not to inconvenience land traffic crossing the Canal. 3 Del. Laws c. 78 at 185 (1801).

Based upon projections of future traffic demand, the Corps will fall short of its obligation to provide good and sufficient bridges unless additional lanes of traffic are constructed. The need for the additional lanes of traffic has already been established to the satisfaction of the Federal Highway Administration.

The Corps is not the Federal agency with the authority to determine whether the additional lanes of traffic are necessary. 23 U.S.C. sec. 103. Rather, the Corps is the agency responsible for providing adequate crossings over the Canal. Without the additional lanes, travel and commerce across the Canal will be inconvenienced when the volume of vehicles crossing the bridges increases.

Any attempt by the United States Government and the Corps to avoid its responsibility to construct and maintain good and sufficient bridges to avoid inconvenience to the traffic, such as unnecessary long-term lane closures or failure to provide an adequate number of lanes for traffic, would be deemed a partial or full taking of the State's right of way, entitling the State to just compensation.

III. THE UNITED STATES AND THE CORPS ARE ESTOPPED FROM DENYING THEIR LEGAL OBLIGATION TO PROVIDE GOOD AND SUFFICIENT CROSSINGS OVER THE CANAL

The doctrine of equitable estoppel, long recognized in Delaware, is based on the ground of promoting fairness and justice by preventing an attempt "to mislead another, and induce him by an assertion of a fact, or the withholding a statement he was bound to make, to act in a way that would be prejudicial to himself." *See*, *Lewis v. Coxe*, Del. Super., 5 Har. 401, 403 (1852). It is said that equitable estoppel arises from the conduct of a party, and prevents the inequitable assertion of claims or rights which might have existed by other rules of law. 3 Pomeroy's Equity Jurisprudence, (5th ed.) secs. 802, 804. Equitable estoppel is based upon justice and good conscience. Pomeroy's, sec. 802, p. 180. For the reasons set out below, an application of the doctrine of equitable estoppel to the present circumstances dictates that the United States and the Corps are estopped from denying their legal obligation to provide good and sufficient crossings over the Canal.

The specific elements necessary to give rise to an application of the doctrine of equitable estoppel were set out by the Delaware Supreme Court in Wilson v. American Insurance Company, Del. Supr., 209 A.2d 902 (1965). In Wilson, the Court stated that:

> An estoppel may arise when a party by his conduct intentionally or unintentionally leads another, in reliance upon that conduct, to change position to his detriment. (Citations omitted). To establish an estoppel, it must appear that the party claiming the estoppel lacked knowledge and the means of knowledge of the truth of facts in questions, that he relied on the conduct of the party against whom the estoppel is claimed, and that he suffered a prejudicial change of position in consequence thereof. (Citations omitted).

209 A.2d at 903.

Based upon the elements of equitable estoppel as contained in Wilson above, Delaware law requires the party seeking to establish equitable estoppel to show:

1. that he lacked knowledge and the means of knowledge of truth of the facts in questions;
2. that he relied on the party against whom the estoppel is claimed; and
3. that he has suffered a prejudicial change of position in consequence thereof.

209 A.2d at 903.

Regarding the first element, the State of Delaware clearly lacked both the knowledge and the means of knowledge that the United States was going to deny its obligation to provide good and sufficient crossings over the Canal. A review of the history of the development of the Canal manifests a continuous and determined effort by the United States Government to construct, maintain, and repair the bridges crossing the Canal.

On December 8, 1894 the board appointed by the President to determine a route for an expanded Chesapeake and Delaware Canal reported that:

> A canal will facilitate water-borne commerce, but it may also serve to obstruct land-borne, by the interruptions due to bridges that must be opened when the canal traffic is not carried on in barges alone.

H. Exec. Doc. 102, p. 5. The chairman of the board was Brigadier General Thomas L. Casey, Chief of Engineers.

Attached to the board's report was the report of Mr. N.H. Hutton, Assistant Engineer for the Corps. As a result of a survey conducted by the U.S. Engineers Office from August 1878 until January 1879, Mr. Hutton reported on September 20, 1879 that:

> The question of providing means of transit over the canal, in a country so plentifully supplied with wagon roads as is this peninsula, becomes a serious one, both as to cost and delay in passing vessels through the canal, by reason of the frequent stoppages at the draws.

H. Exec. Doc. 102, p. 21. The route chosen for the expanded canal was the location of the existing Chesapeake and Delaware Canal. H. Exec. Doc. 102. The costs of replacement of the bridges were incorporated into estimates of the project. H. Exec. Doc. 103, 53rd Cong., 3d Sess. (1894), pp. 69, 87.

The Corps attempted to eliminate the Reedy Point Bridge, but was not allowed to do so. S. Doc. 123 at xx. Major General Harry Taylor, Chief of the Army Corps of Engineers, stated at a March 1926 Hearing on H.R. 11176 before the House Committee on Rivers and Harbors, 69th Cong., 1st Sess. 39 (1926) that:

> [T]he private canal, as it was before we took it over, had to build the original bridge...[T]hey were obliged to build the original bridge, and we took over all their obligations. So we are obliged to build a new bridge.

In a report to the House Committee on Rivers and Harbors, Colonel Earl I. Brown, the District Engineer for the Corps, reiterated the obligations of the Corps with respect to the bridges:

> In planning all operations, certain primary considerations had to be kept in mind; first, in authorizing the work, Congress imposed the condition that traffic on the canal should be interfered with during the reconstruction as little as possible; second, the spoil from the excavating operations should be disposed of as closely as possible to the point from which taken without overloading the banks of the canal; third, it was known that land slides had occurred in the deep cut in the past, particularly during the original construction of the canal and that they might be expected to recur on a large scale during or after the new operations; fourth, all land traffic, both highway and rail, to and from the Delmarva Peninsula, crossed the canal on various bridges, and these lines of communication could not be broken.

(Emphasis added). Report of Colonel Earl I. Brown, District Engineer, Corps of Engineers, to House Committee on Rivers and Harbors, June 30, 1933, H. Doc. 24, 73rd Cong., 2nd Sess. (1933).

In the February 15, 1950 report of the District Engineer of the Corps to the Chief of Engineers, the District Engineer noted, in referring to the proposed construction of the fixed-span bridges at Summit and Reedy Point, that:

> Recognizing certain rights of the public to highway crossings at Reedy Point and Summit, the United States bore the entire cost of constructing bridges at these points when the canal was converted to a sea-level waterway, and subsequently has borne the entire cost of

> their operation and maintenance. The rights of the public to these crossings are as valid at this time as when the existing bridges were constructed; their continuance appears to be warranted by the volume and importance of the traffic that they carry; their elimination is definitely opposed by local interests and the Delaware State Highway Department; and the State will not cooperate in defraying the cost of their replacement or subsequent maintenance. In view of these facts it appears that the United States should bear the entire cost of constructing and maintaining the proposed new bridges.

(Emphasis added). S. Doc. 123, at 34.

By letter dated June 4, 1953, Robert B. Murray, Jr., the Under Secretary of Commerce, wrote to the Assistant Chief of Engineers for Civil Works of the Corps that:

> While we concur in the recommendations of the Chief of Engineers concerning the Summit and Reedy Point Bridges attention is called to the fact that when the Federal Government originally acquired the Chesapeake and Delaware Canals from private ownership it took over all the property, rights of property, franchises, and appurtenances which included the bridges at Reedy Point, St. Georges, and Summit in the State of Delaware and thus the Federal Government is legally obligated to provide crossings of the canal at the location of the original bridges.

S. Doc. 123, at xix, xx.

The Corps of Engineers is a division of the Department of the Army, an agency of the United States Government. 5 U.S.C. sec. 101; 10 U.S.C. secs. 3036(a)(1), 3063(a)(4). Therefore, the United States Government as a whole, in addition to the Corps, is equally responsible for constructing and maintaining good and sufficient bridges over the Canal.

In addition to the language quoted above, by conduct the United States and the Corps have consistently acknowledged their obligation to construct and maintain good and sufficient crossings since the condemnation of the Company's property in 1919. The Corps has continued to maintain bridges over the Canal since the condemnation. S. Doc. 123, at 34. After the ship collision in 1939, it was the Corps that reconstructed the St. Georges Bridge at Federal expense. Rivers and Harbors Act of 1939, 53 Stat. at 1240. The Summit and Reedy Point Bridges were reconstructed by the Corps when it became necessary to provide higher elevation fixed-span bridges rather than drawbridges at those sites. Rivers and Harbors Act of 1954, 68 Stat. at 1248, 1249.

Congress also acknowledged the Federal Government's obligation to maintain adequate bridges over the Canal by appropriating funds to maintain and improve the bridges. River and Harbors Act of 1939, Pub. L. No. 76-310, 53 Stat. 1240 (1939); Rivers and Harbors Act of 1954, Pub. L. No. 83-780, 68 Stat. 1248, 1249 (1954). The appropriations allowed the bridge system over the Canal to be upgraded rather than just maintained in the condition which existed at the time of the condemnation in 1919. The Corps widened some of the existing bridges and replaced drawbridges with fixed-span bridges. Such renovations were consistent with the Corps obligation to provide good and sufficient bridges to meet the needs of the growing population and the increased use of the bridges.

While the United States and the Corps of Engineers have consistently acknowledged by conduct their obligation to provide good and sufficient crossings over the Canal, the United States has never asserted or maintained that the State of Delaware was obliged to provide good and sufficient crossings over the Canal. In fact, the conduct of the United States clearly indicates otherwise: that the United States, and not the State of Delaware, is obligated to provide good and sufficient crossings over the Canal.

Regarding the second and third elements of equitable estoppel, the State of Delaware has relied upon the conduct of the United States and has suffered a prejudicial change of consequence by virtue of such reliance. The State of Delaware is presently planning the construction and development of the U.S. Route 13 relief route. This relief route constitutes a major construction project and necessarily involves extensive planning. Throughout the planning stages of this project, the State of Delaware has acted based upon its assumption that the United States Government was financially obligated to provide good and sufficient crossings over the Canal. The State of Delaware has sought and gained approval of the relief route project by the Federal Highway Administrator. To allow the United States to be relieved of its obligation to provide good and sufficient crossings over the Canal at this point in time would require the State of Delaware to re-organize the relief route project in a different fashion, thereby causing the State of Delaware to suffer both unnecessary expense and great delay in the implementation of the relief route project.

Furthermore, the State of Delaware has reported budget surpluses for approximately the last ten years. The State of Delaware has determined that portions of these surplus amounts should be expended for one-time capital improvement projects, and that the remainder would be given back to the Delaware citizenry in the form of tax cuts. This fiscal philosophy was, in large part, based upon the reasonable expectation that such surplus funds would not be used to construct, repair, or maintain bridges over the Canal because such obligation has traditionally and consistently been borne by the United States Government. In fact, only within the last two years has the United States indicated to the State of Delaware that the United States would be unwilling to bear the costs of providing good and sufficient crossing over the Canal.

The State of Delaware has suffered a prejudicial change of position by relying upon the conduct of the United States in that, had it known of the intention of the United States to no longer be financially obligated for good and sufficient crossing over the Canal, the State of Delaware would have been able to allocate sufficient funds in the past for such necessary construction regarding the Canal and to plan its State budget accordingly so that the present prospect of financial hardship would be alleviated.

IV. IMPLIED CONTRACTUAL OBLIGATION OF THE UNITED STATES AND THE CORPS

Even if the United States and the Corps did not expressly assume the Company's contractual obligation, the conduct of the United States and the Corps infers that an implied contract exists between the State of Delaware and the United States. United States v. O. Frank Heinz Construction Co., 300 F.Supp. 396 (S.D.Ill. 1969). In Heinz, the United States District Court for the Southern District of Illinois defined "implied contracts" to include:

> contracts implied in fact and "quasi" or constructive contracts. In the case of In re Estate of Brumshagen, 27 Ill.App.2d 14, 23, 169 N.E.2d 112, 117 (1960), the Court stated:
>
> > "An implied contract is proven by circumstances showing that the parties intended to contract or by circumstances showing the general course of dealing between the parties. An agreement may be said to be implied when it is inferred from the acts or conduct of the parties..."
>
> It is clear that a "meeting of the minds" is not required to be shown by an unequivocal acceptance in an implied contract. Neither a written offer and acceptance nor oral counterparts are essential to establish a contractual relationship, for unambiguous conduct of one party toward the other under such circumstances as clearly to manifest an intention that one party perform and the other party compensate for such performance is sufficient. 17 C.J.S. Contracts sec. 4b (1963).

300 F.Supp. at 399. The concept of implied contracts is accepted in Delaware. *See*, *Trincia v. Testardi*, Del. Ch., 57 A.2d 638, 642 (1948).

A contractual obligation existed between the Company and the State of Delaware based upon the Charter of the Company. 3 *Del*. *Laws* c. 78 (1801). In exchange for the grant of the Charter by the State, the Company agreed to provide good and sufficient bridges over the Canal. 3 *Del*. *Laws* c. 78 at 185 (1801). Had the United States and the Corps not manifested an intent to provide the crossings, the State's right of way would have been subject to condemnation. The State took no action in the condemnation proceedings because the United States and the Corps assumed the Company's obligation through the condemnation proceedings. *See*, *Commissioners of Highways, etc. v. United States*, 466 F.Supp. 745 (N.D.Ill. 1979), *aff'd in part*, *rev'd in part*, 653 F.2d 292 (7th Cir. 1981). The conduct by the Corps in maintaining, reconstructing and improving the bridges since the condemnation with funds appropriated by Congress, the statements of officials of the Corps that it was obligated to do so, and the conduct of the United States during the condemnation proceedings support the position that an implied contract exists between the United States and the State.

V. CONCLUSION

In its July 20, 1989 memorandum, the Department of the Army Office of General Counsel indicated that it is not obligated to construct the proposed new bridge and were it obligated it could not do so because Congress has not appropriated funds for that purpose. The Corps' obligation to construct the new bridge exists independent of the status of the appropriation process. The Corps is not only obligated to construct the new bridge and estopped from denying its obligation, it has an affirmative duty to seek adequate appropriations for the proposed bridge in order to comply with its existing obligations. The issue of appropriations has no bearing on the Corps' obligation to maintain the existing St. Georges Bridge in a manner which will provide the minimum disruption to the traffic flow.

While other factors and authorities may support the position set forth above, the authorities cited herein provide ample support for the conclusions that the United States and the Corps are obligated to construct, maintain and repair good and sufficient bridges over the Canal in a manner that provides minimal disruption to the flow of traffic and to construct new bridges where necessary.

If you have any further questions regarding this matter, please do not hesitate to contact us.

Very truly yours,

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Re: Obligation of the United States to Construct and
Maintain the U.S. Route 13 Relief Route Bridge
Over the Chesapeake and Delaware Canal at St. Georges

Gentlemen:

Thank you for the opportunity to meet with you and other representatives of the Federal Government on February 8, 1990 in Washington. We certainly appreciate the serious consideration and enlightening viewpoints the attendees gave to the issues surrounding the 1801 Charter and the Federal assumption of the obligations contained within it. As we stated at the meeting, if you believe another meeting would be useful, or if you want more information concerning this critical issue, please feel free to contact me or members of my staff at any time.

At our meeting much of the discussion centered upon the interpretation and effect of Section 16 of the Delaware Charter of the Chesapeake and Delaware Canal Company. 3 Del. Laws, c. 78, at 185 (1801). As we stated at the meeting, the State of Delaware believes that the United States assumed the obligation to maintain good and sufficient bridges contained in Section 16 when it acquired the corporate franchise. Accordingly, the United States has the legal and contractual obligation to provide for the necessary expansion of the St. Georges crossing traffic capacity. This expansion requirement is met by the State's proposal for the functional equivalent of a twin span for the existing bridge, approximately 567 yards from the existing, obsolete span. The twin span, with six lanes of traffic and two wide shoulders capable of conversion into two additional lanes, would serve the U.S. Route 13 Relief Route. In addition to the opinions you already received on these issues, some points raised at the meeting bear further discussion.

The 1801 Charter, a corporate charter granted by the State, was a contract between the Chesapeake and Delaware Canal Company and the State of Delaware. See, 18 C.J.S. Corporations

Section 71, p. 456 (1939); Morris v. American Public Utilities Co., Del. Ch., 122 A. 696, 700 (1923). In exchange for granting the corporate franchise to the Canal Company, the State reserved the right to have good and sufficient bridges provided by the Canal Company at the Canal Company's expense. 3 Del. Laws c. 78, sec. 16, at 185 (1801). The State's right was similar to a private right of way, which is a property interest. See, United States v. Welch, 217 U.S. 333, 339 (1910). The condemnation proceedings in 1919 did not attempt to extinguish and did not have the effect of extinguishing the obligation owed to the State to provide good and sufficient bridges. However, the United States took over the Canal Company's property, including the bridges, through the condemnation.

Congress authorized the condemnation of "the existing Chesapeake and Delaware Canal and all the property, rights of property, franchises, and appurtenances used or acquired for use in connection therewith or appertaining thereto." Rivers and Harbors Appropriations Act of 1919, Pub. L. 65-323, 40 Stat. 1275, 1277 (1919); see, also, Rivers and Harbors Appropriations Act of 1917, Pub. L. 65-37, 40 Stat. 250, 253 (1917). This statute did not authorize the taking of the State's property interest. Therefore, the Federal Government's responsibility to provide good and sufficient bridges still exists today.

The description of the property authorized to be condemned was incorporated into the Petition for Condemnation. United States v. Chesapeake and Delaware Canal Company and Fidelity Trust Company, No. 5 Dec. Term 1918. (Copies of the Petition for Condemnation, the transcript of the condemnation hearing, and the deed were sent to Mr. Gerald Fish of the Justice Department, under separate cover). The Petition for Condemnation specifically outlines the property in question. No mention is made of the State's right to good and sufficient bridges, even though it is contained within the Charter. The Petition for Condemnation, at p. 22, states that the Board of Directors of the Canal Company were willing to accept $2,514,289.70 (the full amount authorized by Congress) "as a price for its said property." However, due to difficulties in obtaining the approval of the bondholders and stockholders of the Company and gaining clear title, the United States determined that it should proceed to condemnation proceedings rather than purchase the property. Petition for Condemnation, at 22-23.

During the April 8, 1919 hearing before the Honorable Hugh M. Morris, District Judge, Charles F. Curley, Esquire, the attorney for the United States, in addressing the jury, described the property at issue as "the property and appurtenances of the Chesapeake and Delaware Canal Company, a corporation of Delaware, Maryland and Pennsylvania, used in connection with the operation of the canal." Transcript at 3. Felix Agnus, chairman of the Agnus Commission, testified that his Commission determined that the value of the Canal Company property was $2,514,289.70 (the full amount authorized by Congress for the condemnation). Transcript at 6-9. The jury assessed the Canal Company's property at that amount. Transcript at 22-23.

Congress only authorized the condemnation of the Canal Company's property. The construction of such authorizing statutes has been discussed in 3 Nichols on Eminent Domain, sec. 9.2[1] (Revised 3d ed. 1985):

> Statutes authorizing the exercise of eminent domain are to be strictly construed against the condemnor. This rule of strict construction has been applied to statutory declarations with respect to the extent of the interest which is to be acquired. It has been held that only such interest as is expressly authorized by statute may be taken. The extent of the interest to be acquired may not be enlarged by implication.
> (footnotes omitted).

Therefore, under a strict construction of the Rivers and Harbors Appropriations Act of 1919, the United States was only authorized to condemn the Canal Company's property, not the

State's property interest in having the Canal Company provide good and sufficient bridges over the canal.

The United States assumed another obligation to provide and maintain good and sufficient bridges in Illinois through condemnation proceedings in the late 1800s. That obligation was the subject of litigation in Com'rs of Hwys. of Towns of Annawan, et al. v. U.S., 466 F.Supp. 745 (N.D. Ill. 1979), aff'd in part and rev'd in part, 653 F.2d 292 (7th Cir. 1981) ("Annawan"). In Annawan, the right to have the bridges maintained was held to be a property interest for which compensation was owing upon a taking. 653 F.2d at 296. The United States Court of Appeals for the Seventh Circuit also held that the United States continued to be responsible for maintenance costs which accrued during their ownership, even after the United States had transferred ownership of the bridges to the State of Illinois. 653 F.2d at 298.

While there are factual differences between Annawan and the instant case, those differences are not relevant. In Annawan, the obligation to provide good and sufficient bridges appears to have been created by the authorizing legislation and was specifically limited by that legislation in the following language:

> [t]hat in acquiring right of way the Secretary of War may make agreements for

> joint user [sic] where the canal crosses other lines of transportation if such agreements can be made upon reasonable terms: Provided further, That in acquiring the right of way by agreement or otherwise for the crossing of existing public highways over the parts of the canal constructed on land, the basis of agreement or condemnation shall be construction and maintenance of bridges by the United States Government, as provided for in the detailed plans and estimates heretofore submitted to Congress, but this provision shall not apply to bridges constructed over public waters of the United States now occupying part of the line of the said canal, nor to bridges constructed after the completion of said canal or part thereof adjacent to the bridge sites.

Annawan, 466 F.Supp. at 749, citing the Act of July 13, 1892, ch. 158, 27 Stat. 88, 106. (Emphasis in original).

The instant case differs from Annawan because here the obligation to maintain good and sufficient bridges does not contain any limiting language. The obligation arose from the 1801 Charter granted by the State rather than from an Act of Congress. The holding in Annawan does not require that the obligation stem from an Act of Congress. Therefore, Annawan stands for the proposition that the United States is bound by obligations it assumes in condemnation proceedings, but the holding is not limited to those cases in which the obligation arose out of Federal law. As to the present matter, the United

States assumed the 1801 obligations through the Congressionally authorized condemnation.

At the February 8 meeting, Mr. Cohen also questioned the State's reliance upon the undisputed statements of members of the Executive Branch during the 70-year history of Federal ownership, management, and expansion of the canal and its bridges. In addition to our comments at the meeting on this subject, we also refer you to N.L.R.B. v. Hearst Publications, Inc., 322 U.S. 111 (1944), as well as 73 Am. Jur. 2d, Statutes, Sec. 168, pp. 371-72 (1974). These authorities indicate that significant weight should be given to the longstanding construction of legislation by the agency and executives charged with administering the program derived from the legislation. Accordingly, in the present case the State is certainly entitled to rely on the comments made by such Federal officials as Major General Harry Taylor, Chief of the Army Corps, when in 1926 he discussed the Corps' obligations before a House Committee, and the broadly worded admission of Secretary of War Harry H. Woodring: "The United States is obligated to maintain reasonably adequate highway crossings over the canal." Letter to Senator Bailey, July 6, 1939, supporting S.B. 2524 (Pub.L. No. 76-310 (1939). These statements are not only admissions against interest, but also accurately reflect the legal and contractual obligations assumed by the United States when it acquired the canal company's property. We found no legislative history to the contrary.

We also refer you to another case involving this canal, Perrine v. Chesapeake and Delaware Canal Co., 9 How. (50 U.S.) 172 (1850), which relates to and supports the State's position. Relying on such cases as Dartmouth College v. Woodward, 4 Wheat. 518, 627 (1819), Chief Justice Taney held that the Canal Company "is a mere creature of the law, and can exercise no powers except those which the law confers upon it, or which are incident to its existence." Perrine, supra, 50 U.S. at 184. Justice Taney stated that:

> [t]he corporation has no rights of property except those derived from the provisions of the charter, nor can it exercise any powers over the property it holds except those with which the charter has clothed it. It holds the property only for the purposes for which it was permitted to acquire it,--that is, to effectuate the objects for which the Legislature created it.

Id. In Perrine, the Canal Company claimed the inherent right to charge tolls for passengers on steam packets traveling through the canal. The Supreme Court held that the Canal Company could not expand its powers to collect tolls which were neither expressly nor impliedly permitted under its corporate franchise.

As to the present matter, the State's reservation of its right to determine that the Canal Company's franchise holder should provide additional traffic crossing capacity over the canal, and the express obligation of the franchise holder to build and maintain good and sufficient bridges over the canal at its expense, remain in effect today. The United States did not acquire the right to avoid this responsibility, since the Canal Company's franchise did not contain this right. Of course, as occurred in previous years, the United States could itself determine that new needs existed and so provide for them without an express directive from the State. Nonetheless, the State retained the independent right to determine that new capacity was needed to meet the sufficiency standard contained in the Charter, and it has done so through the passage of recent legislation. (A copy of that legislation is attached as Exhibit A.)

Other points addressed in Perrine bear mentioning here. Chief Justice Taney held that:

> Any ambiguity in the terms of the grant must operate against the corporation and in favor of the public, and the corporation can claim nothing that is not clearly given in the law.

Perrine, supra, 50 U.S. at 192. Furthermore, "The rights of the public are never presumed to be surrendered to a corporation, unless the intention to surrender clearly appears in the law." Id. Finally, the Supreme Court held that "[i]t is not the province of this Court to enlarge the powers of a corporation beyond the limitations of the charter, because circumstances have changed." Id. at 189.

These holdings also support the State as applied to this matter. As held in Delaware R. Co. v. Weeks, 293 F. 114 (D.Del. 1923), decided by the same judge who presided over the Canal Company condemnation, the United States acquired the assets and obligations of the Canal Company--nothing more, nothing less. Nothing in the acquisition extinguished the obligations contained in Section 16. In fact, Judge Morris specifically referred to Section 16's reservation clause. Id. at 117. Furthermore, the State's acceptance of the acquisition did not extinguish its prior reservation of the right to decide that more lanes of traffic over the canal were needed, to be provided at the canal owner's expense. The Federal Government accepted these facts in the past, and it should continue to do so today.

Mr. Cohen also raised an issue concerning the "pains and penalties" clause in Section 16. As we stated at the meeting, in our view issues involving that clause are premature at this time. Nonetheless, we also refer you to the general rules of statutory construction, which should allay any concerns you may have that the rest of Section 16 is somehow controlled by the "pains and penalties" clause.

Courts avoid giving statutory language a "strained or forced" meaning. 73 Am.Jur.2d, Statutes, Section 206, pp. 401-402 (1974); see, also, 2A Sutherland, Statutory Construction (4th ed. 1984), Sections 45.12 and 47.28, pp. 54-67, 223-34. Instead, the words of the statute are to "be interpreted in their ordinary acceptance and significance, and the meaning commonly attributed to them." 73 Am.Jur.2d, Statutes, Section 206. In addition,

> ...where a statute grants a right or imposes a duty, it also confers by implication every particular power and every reasonable means necessary for the exercise of the one or the performance of the other.

Id. at Section 209, p. 404. These canons support the State's position as applied to Section 16 of the Charter.

The first clause establishes the canal owner's obligation to "make and keep good and sufficient bridges over the canal...." Nothing in this clause limits the determination of sufficiency to the standards of 1801. The standard is an elastic one, changing to meet the traffic needs. Until now, the canal owners have met this obligation. In addition, this clause does not depend on the rest of the section for a rational determination of its meaning. The duty contained in this section carries with it the necessary implication that the canal owner has the right to act to meet additional crossing needs, without more.

The second clause, separated from the first by the word "and," covers a different subject. It contains the state's right to protect the public, by reserving the specific ability to "at all times hereafter, to enact laws for the erecting and maintaining bridges across the said canal, at the expense of the said company...." Using the ordinary meaning of the phrases in this clause, the State merely reserved the option to protect the public if the canal owner did not independently meet the obligation of the first clause.

The third clause, separated from the second by the word "and," reserved to the State a legislative option, which could "subject the said company to forfeiture, pains and penalties for not complying with" State legislation determining the need for additional traffic crossing capacity. This clause cannot be read as limiting or controlling the State's right to make the initial determination of need, because it is unrelated to that determination. The penalties clause could only be activated if the canal owner refused to meet its obligation after legislative notice by the State of the State's determination of need. Therefore, this third clause is dependent upon the second clause, not vice versa. See, Perrine, supra at 192; See, also, 3 Sutherland, Statutory Construction (4th ed. 1984), sec. 63.06, pp. 147-51 (franchises must be given strict interpretation against claims of grantee and in favor of the public).

We believe the information provided here and in previous submissions gives the Federal Government the legal and factual support for a decision favoring the continuation of the longstanding Federal commitment to meeting the obligations it assumed by taking over the Chesapeake & Delaware Canal. We certainly value the time you have devoted to understanding the State's position on this matter and appreciate your willingness to discuss the issues openly. We also know you understand the importance to the economy of the State of Delaware and the United States of assuring that the crossings over the canal meet the present and future traffic needs. As noted earlier, if you need any further information, please contact us at your earliest convenience.

Very truly yours,

Charles M Oberly III

Charles M. Oberly III
Attorney General

Michael F. Foster

Michael F. Foster
State Solicitor

CMO/rt
Enclosures

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David M. Cohen, Esquire
Gerald S. Fish, Esquire
Terrence Hartman, Esquire
Ms. Karen Branding
The Honorable Kermit H. Justice
Mr. R.D. Bewick

SPONSOR: Sen. Martin, Rep. Roy
Sen. Cook, Rep. Caulk
Sen. Sharp, Rep. B.Ennis
Sen. Minner, Rep. Outten
Sen. Hauge, Rep. Jester
Sen. R. Still Rep. Mack
Sen. Vaughn Rep. Taylor

FEB 8 1990 67 172

DELAWARE STATE SENATE

135TH GENERAL ASSEMBLY

SENATE SUBSTITUTE NO. 1

FOR

SENATE BILL NO. 321

JAN 24 1990

AN ACT OF THE 135TH DELAWARE GENERAL ASSEMBLY REQUESTING THE GOVERNMENT OF THE UNITED STATES OF AMERICA TO PROVIDE FOR THE TIMELY CONSTRUCTION AND MAINTENANCE OF A NEW BRIDGE OVER THE CHESAPEAKE AND DELAWARE CANAL IN THE VICINITY OF ST. GEORGES, AS PART OF THE U.S. ROUTE 13 RELIEF ROUTE, IN KEEPING WITH ITS OBLIGATIONS TO THE STATE OF DELAWARE.

BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF DELAWARE:

Section 1. Legislative Findings and Determinations.

(a) The General Assembly finds that:

(1) The Chesapeake and Delaware Canal cuts the State of Delaware and the Delmarva Peninsula into two parts, eliminating overland access to the major metropolitan areas of the East Coast.

(2) In recognition of the effect of the canal on the State's economy, the Act of Incorporation of the Chesapeake and Delaware Canal Company, enacted into law at 3 Delaware Laws, Chapter 78, provided in Section 16 of said Act that "Whenever said canal shall cross any public road, it shall be the duty of said company, at the proper expense of the same, to make and keep good and sufficient bridges across the said canal, so as to prevent any inconvenience, in the usage of said road or roads by reason of said canal crossing the same, and that it shall be lawful for the Legislature of this State, at all times hereafter, to enact laws for the erecting and maintaining bridges across the said canal, at the expense of the said company, and to subject the said company to forfeitures, pains and penalties for not complying with such laws."

(3) By an Act dated March 26, 1909, appearing at 25 Delaware Laws, Chapter 165, the General Assembly approved in advance the acquisition of the property,

EXHIBIT A

rights of property, franchises, and appurtenances of the Chesapeake and Delaware Canal Company by the United States of America. This approval did not in any way eliminate the obligation contained within Section 16 of the corporate franchise to build and maintain sufficient bridges over the Canal.

(4) The River and Harbors Act of 2 March 1919, Public Law No. 323, autherized the acquisition by condemnation by the United States of the Company's Chesapeake and Delaware Canal and "all the property, rights of property, franchises, and appurtenances used or acquired in connection therewith. . . " By such acquisition the United States assumed the Company's obligations, including the obligation to make and keep good and sufficient bridges over the canal. In connection with the acquisition, Congress expressly provided that "all land traffic, both highway and rail, to and from the Delmarvia (sic) Peninsula" crossing the canal "could not be broken". The condemnation was carried out in 1919, and the United States of America has since owned, operated, maintained, and improved the Canal and the highway bridges crossing it.

(5) In keeping with the obligations it assumed, the Federal Government built new bridges over the canal at Reedy Point, Summit, and St. Georges, including the addition of new lanes for highway traffic at Summit and St. Georges. The accepted understanding by the United States of its obligations is illustrated by a written statement of July 6, 1939, by then-Secretary of War, Harry H. Woodring: "The United States is obligated to maintain reasonably adequate highway crossings over the canal". Accordingly, when new lanes of highway crossings are needed, the United States is obligated to provide them.

(6) United States Route 13 crosses the canal at St. Georges. The existing bridge for Route 13 at St. Georges is the most important bridge over the canal in Delaware, carrying 60% or more of the north-south traffic from the Delmarva Peninsula to major eastern cities.

(7) As reflected, inter alia, in recent bond bills passed by the General Assembly, the State has determined that a relief route is necessary to carry the increased traffic now overburdening U. S. Route 13. This relief route, as planned by the State and approved by the Federal Highway Administration, includes a new crossing over the canal in the vicinity of the existing crossing at St. Georges, Delaware. Construction of aspects of this route began in 1989, with the State eventually projected to incur over $400 million in construction costs, financed from the State's Transportation Trust Fund, over and above the construction costs of the new crossing over the canal.

(8) The Delaware Department of Transportation estimates that rising annual average daily traffic (AADT) figures within this decade will lead to falling levels of service on U.S. Route 13, in the absence of the new Relief Route, which includes a new crossing over the canal.

(9) The existing St. Georges Bridge is currently scheduled for interim repairs. It is also projected that major rehabilitation of the existing bridge will be required. The interim repairs should permit the delay of the major rehabilitation of this bridge for five years. Nonetheless, the projected major rehabilitation will cause severe traffic disruptions on U. S. Route 13, in the absence of a new crossing for the Relief Route being in place by that time.

(10) A new bridge for the U. S. Route 13 Relief Route, using designs now under review by the Delaware Department of Transportation and the Federal Highway Administration, will take at least three years to be completed and open to traffic.

(11) Under the circumstances outlined herein, at a minimum the new bridge for the relief route should be built and in operation on or before December 31, 1995 in order to maintain levels of service and prevent the serious disruption of the State's economy.

(b) The General Assembly hereby determines that pursuant to the obligations the United States assumed by its acquisition of the property of the Chesapeake and Delaware Canal Company, the United States should provide for the construction and maintenance of a new bridge over the canal to carry the highway traffic using the U. S. Route 13 Relief Route, in order to make and keep good and sufficient crossings over the canal.

Section 2. Terms and Conditions. Pursuant to its legally binding obligation contained in 3 Delaware Laws, Chapter 78, Section 16, the Government of the United States of America is hereby requested to provide for the construction and maintenance of a new bridge over the Chesapeake and Delaware Canal for the U. S. Route 13 Relief Route, under the following terms and conditions:

(a) The new bridge should be built using a design and in the location approved by the Delaware Department of Transportation and the Federal Highway Administration, on a schedule which will permit the new bridge to be in operation on or before December 31, 1995.

(b) Federal appropriations for the Federal Fiscal Year 1991, which begins October 1, 1990, should contain provisions indicating the Federal Government's acceptance of its obligation to provide for the construction and maintenance of the new bridge under the terms and conditions outlined herein, on or before December 31, 1995. The absence of any such appropriation, or other suitable Federal legislation enacted before December

31, 1990, as determined by the Governor, shall be taken by the State of Delaware as a refusal by the Federal Government to meet its obligations to make and keep good and sufficient crossings over the Chesapeake and Delaware Canal, as required under 3 Delaware Laws, Chapter 78, Section 16.

Section 3. Effective Date. This Act shall become effective upon approval by the General Assembly and execution by the Governor; however, Section 2 of the Act shall not remain in effect if the Government of the United States and the State of Delaware enter into an agreement which will provide the necessary crossing over the canal under terms and conditions acceptable to both governments, which terms and conditions may differ from those provided in Section 2.

SYNOPSIS

Under the 1801 law granting the corporation charter to the Chesapeake and Delaware Canal Company, the company was obligated to build and maintain adequate crossings over the canal. The General Assembly reserved the right to make the determination in the future that new crossings would be required, to be built and maintained at the company's expense. The company agreed to the reservation of the State's authority. The United States government assumed these obligations when it acquired the canal company's assets and obligations in 1919.

This bill requests the government of the United States to provide a new bridge over the canal so as to "make and keep good and sufficient bridges across the said canal", so that the new crossing needed for the U.S. Route 13 Relief Route will be in place and in operation on or before December 31, 1995. Failure to meet the terms of the request shall be taken as a refusal to meet the Federal Government's obligations, unless a suitable alternative agreement is reached.

Author - Sen. Martin

TESTIMONY OF THE HONORABLE RON MARLENEE
BEFORE THE HOUSE PUBLIC WORKS AND TRANSPORTATION COMMITTEE
SUBCOMMITTEE ON WATER RESOURCES

March 28, 1990

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE:

THANK YOU FOR THE OPPORTUNITY TO PRESENT TESTIMONY TO THIS SUBCOMMITTEE REGARDING THE WATER RESOURCES DEVELOPMENT ACT OF 1990.

I ASK FOR YOUR HELP IN WHAT'S FAST BECOMING AN EMERGENCY SITUATION FACING MY DISTRICT'S FOREMOST RECREATIONAL SITE -- FORT PECK LAKE. THIS IS THE STATE'S LARGEST LAKE, BUT ITS SIGNIFICANCE IS NATIONAL IN MAGNITUDE.

FORT PECK LAKE IS ONE OF THE LARGEST, IF NOT THE LARGEST, BODIES OF FRESH WATER WEST OF THE MISSISSIPPI. FORT PECK HAS OVER FIFTEEN HUNDRED MILES OF SHORELINE -- MORE MILES OF SHORELINE THAN THE PACIFIC COAST IN THE STATE OF CALIFORNIA. THE LAKE ITSELF IS OVER 134 MILES LONG.

I HAVE A TWO-PART REQUEST TO MAKE TO YOU IN CONNECTION WITH RECREATIONAL ACTIVITY AT FORT PECK LAKE.

FIRST, UNBELIEVABLY, THIS JEWEL OF RECREATIONAL POTENTIAL ON THE MISSOURI RIVER STILL HAS NO SAFE HARBOR, AND THIS FACT ALONE STANDS AS THE GREATEST SINGLE DETRIMENT TO ITS RECREATIONAL USE. WHAT IS DESPERATELY NEEDED IS A PERMANENT BREAKWATER.

FOR SEVERAL YEARS, THE CORPS OF ENGINEERS, WHICH HAS OPERATED THE FORT PECK DAM AND RESERVOIR SINCE ITS CONSTRUCTION IN 1933, HAS MAINTAINED A FLOATING LOG BOOM BREAKWATER ACROSS PART OF THE MAIN MARINA BAY NEAR THE FACE OF THE DAM. BUT THIS STRUCTURE BREAKS FREQUENTLY AND DOES A VERY POOR JOB OF PROTECTING THE BOATS, DOCK FACILITIES AND CORPS-MAINTAINED BOAT RAMPS FROM THE HIGH WINDS AND WAVES.

IN 1977, EFFORTS WERE MADE TO OBTAIN AN APPROPRIATION FROM CONGRESS FOR RECREATIONAL IMPROVEMENTS AT FORT PECK. THE PERMANENT BREAKWATER WAS ON THE LIST OF NEEDED IMPROVEMENTS. BUT, DUE TO A LACK OF FUNDING, AND OTHER MORE-DESPERATE NEEDS AT THE TIME, THE BREAKWATER PROJECT WENT UNFUNDED.

BUT THE NEED FOR THIS BREAKWATER HAS NOW REACHED A CRITICAL POINT. INTEREST IN FORT LAKE IS RAPIDLY INCREASING. LAST YEAR, OVER 700,000 PEOPLE VISITED FORT PECK, MAKING IT ONE OF THE MORE POPULAR CORPS OF ENGINEER-OPERATED SITES IN THE OMAHA DISTRICT. IN RECENT YEARS, THE LAKE HAS HOSTED A NATIONAL FISHING TOURNAMENT THAT IS GROWING IN POPULARITY.

AT THE SAME TIME, HOWEVER, RECREATIONAL USE OF THE LAKE IS THREATENED BY THE FACT THAT FORT PECK IS BEARING THE BRUNT OF THE EFFECTS OF SEVERAL YEARS OF DROUGHT IN THE GREAT PLAINS. OVER 80 PERCENT OF THE WATER FOR THE LOWER MISSOURI BASIN COMES OUT OF FORT PECK. AND THE LAKE HAS PROVIDED THE LION'S SHARE OF WATER RELEASES NEEDED TO MAINTAIN DOWNSTREAM FACILITIES.

INSTALLATION OF A PERMANENT BREAKWATER WOULD ALLOW RECREATIONAL ACTIVITY TO CONTINUE UNABATED BY DECLINING LAKE LEVELS DUE TO THE DROUGHT. IT WOULD STIMULATE RECREATIONAL-BASED ECONOMIC DEVELOPMENT THAT EASTERN MONTANA SO CRITICALLY NEEDS.

THE CORPS OF ENGINEERS ESTIMATES THE COST OF THIS PERMANENT STRUCTURE AT ABOUT $1 MILLION AND, DOLLAR FOR DOLLAR, IT WOULD BE FAR CHEAPER TO ERECT THIS BREAKWATER NOW -- AT A TIME WHEN LAKE LEVELS ARE LOWER THAN THEY'VE BEEN FOR YEARS.

RECREATIONAL DEVELOPMENT AT FORT PECK LAKE CANNOT SIGNIFICANTLY EXPAND WITHOUT THIS BREAKWATER. IN FACT, WITHOUT A PERMANENT BREAKWATER, IT'S LIKELY THAT DURING THIS TIME OF DROUGHT, RECREATIONAL USE MAY VERY WELL BEGIN TO DECLINE. SPORTSMEN, SOME OF WHOM HAVE TRAVELED MANY MILES TO ENJOY THE LAKE, MUST NOW RISK THEIR CRAFTS TO THE ELEMENTS WHEN THEY LEAVE THEIR BOATS IN THE WATER. IF THEY CHOOSE NOT TO LEAVE THEIR BOATS IN THE WATER, THEN THEY'RE FORCED TO TAKE THEM OUT EVERY NIGHT. MORE THAN ANY SINGLE FACTOR, THAT DEFICIENCY ALONE DISCOURAGES THE USE OF FORT PECK LAKE.

ENVIRONMENTAL DEFENSE FUND

257 Park Avenue South
New York, NY 10010
(212) 505-2100

BEFORE THE SUBCOMMITTEE ON WATER RESOURCES OF THE U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION ON REAUTHORIZATION OF FUNDING FOR THE PASSAIC RIVER DUAL INLET TUNNEL DIVERSION PROJECT

D. Douglas Hopkins, Staff Attorney

I offer this testimony on behalf of the Environmental Defense Fund, a national environmental organization with 150,000 members. EDF is headquartered in New York City and many of its members reside in Northern New Jersey.

Funding for the Passaic River Dual Inlet Tunnel Diversion Project should be terminated. This ill-conceived engineering albatross represents the worst possible solution to a chronic and costly problem in Northern New Jersey--the periodic flooding of the Passaic River.

The Corps of Engineers proposes to put the Passaic, a large, biologically rich river, in a giant concrete pipe to prevent it from inundating homes and businesses constructed unwisely in the river's floodplain. The Corps has rejected the wisest, least-cost solution: returning the Passaic River floodplain to its natural condition and function. The floodplain should be

BEST AVAILABLE COPY

restored by condemning floodplain property and relocating homes and businesses to safe upland locations.

The Tunnel Diversion Project would destroy 600 acres of wetlands and degrade 300 additional acres. Especially in a region where years of poor land use planning and insufficient enforcement of protective laws have already led to widespread destruction of freshwater and tidal wetlands, the Tunnel presents an unacceptable compromise. The Northern New Jersey freshwater wetlands and salt marshes have already paid too high a price for suburban sprawl.

The Passaic River Basin wetlands harbor rich wildlife nurseries at the heart of much larger natural ecosystems. The river supports striped bass, American shad, great blue herons and many other wildlife species. Recently, American Rivers, a national environmental conservation organization, listed the Passaic River as one of the nation's 10 most endangered waterways.

It is doubtful the wetlands loss mitigation plan the Corps has formulated for this project will succeed. The Corps has proposed mitigation primarily through enhancing the function of existing wetlands. This means tearing out 'lesser' species of marsh grasses and replanting more desirable vegetation and making physical alterations in the wetlands to change present hydrology. But who will be around to monitor the long-term efficacy of these attempted improvements? The Corps is not in the business of managing wetlands habitat. As the U.S. Fish and Wildlife Service has learned from years of trying to manage wetlands wildlife habitat, the ecological balance of restored, previously degraded wetlands is precarious. Successful management is costly and depends upon vigilant monitoring. The Corps has not shown how it will assure the success of the proposed wetlands mitigation.

The Corps of Engineers simply has not done its homework. First it reached its decision to build the Tunnel and then it developed a cost-benefit analysis to support the choice. The Corps has an insufficient rational basis for relying on its projections of the cost of restoring the flood plain to its natural function by relocating properties. Its buy-out cost figures simply do not stand up under scrutiny. And the Corps has failed to add up, on the other side of the equation, all the direct and indirect costs of the Tunnel, including, among others, the following: the long term debt service; Tunnel maintenance and operation costs; the value of 900 acres of lost or degraded wetlands; the risk (of presumably low probability but high magnitude) of a catastrophic malfunction of the Tunnel; and the predictable, continuing costs of flood disasters during the long construction period before the Tunnel becomes fully functional.

Furthermore, the Corps has violated the federal Fish and Wildlife Coordination Act by systematically ignoring the valuable, science-based input of the U.S. Fish and Wildlife Service. The Fish and Wildlife Service has prepared over 50 technical reports on aspects of the Passaic River Basin that the proposed Tunnel would impact. And yet the Corps has never completed a quantitative impact assessment analysis--a basic and necessary tool for evaluating the Tunnel's likely environmental impact.

It is easy to understand the short-term thinking of the many elected officials from this area who back the Tunnel: "The Tunnel might finally stop this semiannual disaster in the Passaic River Valley. And it means a 1 to 2 billion dollar construction project right here in North Jersey. That's a lot of jobs to bring home." Well this is no longer 1933. And there are plenty of monumental public works projects built during the Great Depression that would never be built today. Many projects were simply unjustified on hardnosed economic grounds. And today we understand keenly the enormous price levied on the environment, in particular wetlands, by fifty years of federally funded flood control projects.

In conclusion, the proponents' argument for constructing the Passaic River Dual Inlet Tunnel Diversion Project is economically unsound. Restoring the floodplain would cost less. The time has come to stop funding the Tunnel and start funding a real solution.

Thank you.

New Jersey Society of Municipal Engineers, Inc.

1929-1990

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April 6, 1990

Honorable Henry Nowak, Chairman
US House of Representatives
Committee on Public Works and
Transportation Subcommittee
on Water Resources

Dear Chairman Nowak:

I enclose for your consideration, a copy of a resolution dated February 1, 1989 from the New Jersey Society of Municipal Engineers, Inc., endorsing the construction of the Army Corps of Engineers Dual Inlet Tunnel project. The municipal engineers concurred with the opinion and recommendation of the Army Corps of Engineers representatives that this project represents the best solution to the flooding problem within the Passaic River basin. I urge you to consider our society's endorsement of the tunnel plan in making your decision to support this project.

Sincerely yours,

Rocco Palmieri

Rocco Palmieri, PE/LS
New Jersey Society of
Municipal Engineers
"PROTECT COMMITTEE LIAISON"

RP:vf

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Sixtieth Anniversary

1929-1989

No. 8904

RESOLUTION IN SUPPORT OF THE PASSAIC RIVER FLOOD CONTROL PROJECT (DUAL INLET TUNNEL PLAN)

WHEREAS, at the general meeting of the New Jersey Society of Municipal Engineers (NJSME) on Wednesday, February 1, 1989 at the Landmark Inn, Woodbridge, New Jersey, Mr. Robert Pietrowsky, of the Army Corps of Engineers, presented a summary of the Dual Inlet Tunnel Plan; and

WHEREAS, following the presentation, an open discussion took place among the members present pertaining to the overall merits and/or shortcomings of the proposed plan; and

WHEREAS, the members are aware that the Dual Inlet Tunnel Plan has been proposed by the Army Corps of Engineers as the solution to the flooding problem which has long existed in the Passaic River Basin and which is long overdue in being resolved; and

WHEREAS, the members are also aware that the State of New Jersey has agreed to be the non-federal sponsor of the project and has endorsed the Corps completion of design drawings; and

WHEREAS, the members are also aware that other organizations within the engineering society have already endorsed the project, among them, the New Jersey Society of Professional Engineers and the Consulting Engineers Council as well as a number of member municipalities including the Borough of Lincoln Park, the Township of Pequannock and the Township of Fairfield; and

WHEREAS, after due consideration and discussion by the general membership, the NJSME agreed to endorse the Dual Inlet Tunnel Plan subject to the condition that the Corps of Engineers take into consideration the potential impact of the project on all municipalities in the basin.

NOW THEREFORE BE IT RESOLVED by the Executive Committee of the NJSME, Inc. that the NJSME, Inc. hereby endorses the Dual Inlet Tunnel Plan as the solution to the flooding problem at the Passaic River Basin subject to the following conditions:

1) That the Army Corps of Engineers, the State of New Jersey and the Congress of the United States carry out the project for flood control in the Passaic River Basin in such a way as to avoid any adverse effects on the municipalities and counties bordering the lower Passaic River or any of the municipalities within the Basin.

2) That the ACOE be authorized to consider the merits of extending the tunnel outlet into Newark Bay and, if appropriate, be authorized to implement this design revision into the project in order to further benefit the municipalities in the lower basin.

3) That the ACOE, State of New Jersey and U.S. Congress, in cooperation with the municipalities in the lower basin evolve plans which will integrate municipal plans for appropriate recreational and aesthetic improvements along the banks of the Passaic River as may be consonant with municipal preferences and with the objectives of the prevention of damage by floodwaters.

BE IT FURTHER RESOLVED that the NJSME, Inc. hereby authorizes the inclusion of its corporate name on the letterhead of the committee known as "PROTECT" which has been formulated by the Alliance for Action for the express purpose of encouraging and supporting the completion of the Dual Inlet Tunnel plan.

BE IT FURTHER RESOLVED that a copy of this resolution be forwarded to the Governor of the State of New Jersey, the Commissioner of NJDEP and the Chairman of "PROTECT"

Adopted February 1, 1989

Secretary

President

THE ASSEMBLY
STATE OF NEW JERSEY
TRENTON

MAUREEN OGDEN
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CONSERVATION, NATURAL RESOURCES AND ENERGY
VICE CHAIRMAN
SELECT COMMITTEE ON LAND USE AND PLANNING
SELECT COMMITTEE ON DRUG ABUSE
MEMBER, HEALTH AND HUMAN RESOURCES

March 16, 1990

The Honorable Henry J. Nowak
Chairman, Water Resources Subcommittee
House Public Works Committee
Washington, D.C.

Dear Congressman Nowak:

I want to take this opportunity to go on record that I am strongly opposed to the Pompton/Passaic Dual Inlet Tunnel Diversion Plan proposed by the U.S. Army Corps of Engineers. In fact, I am a co-sponsor in the New Jersey General Assembly of a resolution which would memorialize the U.S. Army Corps of Engineers and the State Department of Environmental Protection to study and evaluate for submission to the New Jersey Legislature nonstructural alternatives to the Tunnel Diversion Plan.

My opposition to the Army Corps' tunnel plan centers around the loss of wetlands and the extraordinary construction and maintenance costs involved, but most importantly, the alteration and inevitable destruction of a viable natural river system.

The environmental impacts of this project have not been adequately addressed. Current estimates indicate that 900 plus acres of wetlands will be destroyed immediately. Thousands more acres may ultimately dry up and be lost as well. I sponsored the New Jersey Freshwater Wetlands Act because of the great need to protect wetlands for the immeasurable environmental benefits they provide, naturally and free of charge. The elimination and alteration of these wetlands will adversely affect water quality and groundwater recharge areas, potentially diminishing the drinking water supply of ninety-five communities.

The problem in the lower Passaic River Basin is not flooding; the river has flooded the basin for thousands of years. The problem is overdevelopment of the floodplains. I have strongly supported a reasonable buy-out of homes in the floodplain for many years. The only sensible plan to reduce flood damage is to work with the environment--not try to change it. By restoring the integrity of wetlands and floodplains, administering strict land use control and stronger stormwater management, flooding damage can be alleviated, without the unnecessary loss of priceless resources.

In addition, of great concern to me is the cost of the tunnel to towns that are not contributing to flooding because they have prevented construction of "ratables" in the floodplains. Several towns in my District oppose an assessment when they did the "right thing" many years ago. At this writing no one knows how much these towns would be assessed. For that reason alone, I couldn't support this proposal

Sincerely,

Maureen Ogden

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Statement of the Honorable Louise M. Slaughter

Public Works and Transportation Committee
Subcommittee on Water Resources

March 1990

Mr. Chairman and members of the Subcommittee, I'm pleased to be able present testimony on behalf of a project of real importance to the people living in my district in Irondequoit, New York. This community has been split from their neighbors in West Webster since 1985, when a bridge that connected them at the mouth of the Irondequoit Bay was taken down and never replaced. I am requesting that the 1990 water resources bill include authorization for federal funds to help rebuild the Lake Road Outlet Bridge.

The bridge is needed as a result of Army Corps of Engineers action taken under the Rivers and Harbors Act of 1958 which authorized the Corps to open Irondequoit Bay as a safe harbor. In 1985 the Corps tore down the existing Lake Road Outlet Bridge at the mouth of the bay and dredged a channel through the sand spit, opening the harbor. A replacement was never constructed. The people in the Lake Road community are now divided by water.

The five main reasons we need a real replacement bridge are safety, access, equity, economics, and community. Public safety agencies have voiced their concern that in time of need, fire fighters, ambulances, or police can no longer assist on the other side of the bay. The West Webster Fire District reports that each year the requests for help increase but calls in the northwest portion of their district cannot be assisted by the nearby community stations. Instead, assistance comes from stations which take up to twenty minutes to reach the site instead of the five minutes it used to take across the outlet bridge. Replacing the outlet bridge would increase everyone's access to public safety assistance.

The only other bridge spanning the bay, the Route 104 bridge south of the outlet, is overcrowded. Traffic is often backed up when the bridge is under repair. The Route 104 bridge is extremely vulnerable to bad weather and has at times been closed due to icy conditions. This bridge was not intended as the sole crossing of the bay. Congestion, frequent repairs, and accidents have resulted. Replacing the outlet bridge would alleviate these traffic problems.

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The community allowed the Army Corps to tear down the outlet bridge in 1985 because the people believed that the bridge would be replaced once the Army Corps completed its dredging. However, the community had no say in the decision not to rebuild the bridge.

The Lake Road Outlet Bridge was part of the Seaway Trail, a 434-mile trail that follows the shorelines of Lake Erie and Lake Ontario and the Niagara and St. Lawrence Rivers. When the bridge was torn down, that part of the trail through this community disappeared; it now must leave the Lake Ontario shoreline and detour miles inland before returning to the lake shore on the other side of the bay.

The decision to tear down the bridge, broaden and deepen the channel was made to increase visitors to this recreation area. But the decision not to rebuild the bridge has hurt the economy and diminished the number of people who can enjoy the increased recreational opportunities. Fewer people can visit the marinas, restaurants, and parks on both sides of the bay. This does not make sense.

The local community has pulled together to provide its share of the cost of replacing the bridge. It has already spent several hundred thousand dollars for preliminary feasibility studies. It needs and deserves the assistance of the Army Corps in rebuilding a bridge to connect this once close community at the mouth of the bay.

As you may recall, authorization for this project was successfully included in the House-passed version of the 1988 Water Resources Development Act, H.R. 5247. However, it was stripped out of the conference report at the last minute when the House and Senate could not agree on whether to include such projects in the bill. This year the bridge has proven, bipartisan support.

There is strong community support to rebuild the Lake Road Outlet Bridge, but this will not be possible without federal support. The bridge is estimated to cost $15 million -- ten times the amount that would have been needed to replace the bridge in 1958, when the harbor dredging was authorized -- and the local government has money for half of the cost. I urge the Subcommittee to once again include in the Water Resources bill a provision to authorize $7.5 million in federal assistance to rebuild the Lake Road Outlet Bridge.

Thank you.

Louise Slaughter

Mr. NOWAK. Thank you very much, General. We, I think, will have a number of questions on not only the approved projects, but on the ones which are still in review.

First of all, can you give us any timetable for the others that have not received the full approval process?

General KELLY. We hope that most of them will be released this summer. We have some additional ones which will be going before our board of the Board of Engineers for Rivers and Harbors as well. If we have expeditious review through my office and the Secretary's office, we might have some more. The time for policy review for technical, environmental and other measures, however, is not completely within our control.

Mr. NOWAK. On the Galveston Bay Ship Channel, you would be enlarging the Texas City Channel. How large of an enlargement are you recommending?

General KELLY. The Texas City Channel was a separate report. This particular project excludes that. This project only looks at deepening and widening the Houston Ship Channel and the Galveston Ship Channel.

Mr. NOWAK. In the deepening activity, the environmental extension that you have given to the agencies to look at those problems that are associated with that, would you give us a brief, general description of the type of problem that has been identified with that project?

General KELLY. Galveston Bay, like our other estuaries across the country, is a valuable fishery resource, and so it is primarily of concern to the National Marine Fishery Service of the Department of Commerce and the Fish and Wildlife Service of the Department of the Interior.

Our original plan was to place the dredged material in an unconfined manner in the bay. That received some comments and discussion when we were coordinating that with the resource agencies and the Environmental Protection Agency. In the last year, we decided that perhaps there was another way to accommodate that environmental concern. We decided that the portion considered for disposal in the bay could be taken to a near ocean disposal site, even though that was not the National Economic Development Plan. The Port of Houston has volunteered to pay all additional costs necessary to take that material out. That way that material will not be placed in the bay and should alleviate, at least in our opinion, most of the concerns.

The Environmental Protection Agency agreed to that. The other two agencies have not.

Mr. NOWAK. How far was it proposed to move that—we are talking about the dredged sediment?

General KELLY. That is correct, sir. I would take it to a 102-site designated by the EPA. It is probably not more than three or four miles off the coast.

Mr. NOWAK. Three or four miles off of the coast?

General KELLY. Yes, that is correct.

Mr. NOWAK. That takes you outside the bay?

General KELLY. Yes, that takes you outside the bay.

Mr. **Nowak**. Has there been identification of the kind of sediment that would be removed? How did the Corps test the—did you do core testing?

General **Kelly**. Yes, sir, we did. We performed extensive testing to get an idea of what sort of materials we were dealing with.

Mr. **Nowak**. Were there toxics to any degree that would have violated——

General **Kelly**. There are some constituents of concern associated with current maintenance materials up in the Houston Ship Channel portion, but that is not going in the bay. I suspect that the new work material is fairly clean.

Mr. **Nowak**. What are we going to do with the identifiable sediment that is over the toxic levels that are deemed acceptable in that Houston Ship Canal?

General **Kelly**. That material is going all upland. That is going into confined upland sites along the Houston Ship Channel.

Mr. **Nowak**. Confined?

General **Kelly**. Upland sites that are fully confined, yes, sir.

Mr. **Nowak**. Is that a land disposal area?

General **Kelly**. Yes, sir.

Mr. **Nowak**. It is existing.

General **Kelly**. Some of those disposal areas are existing, and some we will have to construct. The resource agencies do not have an issue with that, nor does the Environmental Protection Agency. They are concerned primarily with that portion, which is about 10 or 12 miles, which goes right through the Galveston Bay. They are concerned about the potential effect of the channel and the dredged materials on oysters, shrimp and primarily fin fish. Therefore, we are proposing to take all of that material out to the near ocean disposal site to minimize the impacts.

Mr. **Nowak**. I am wondering what and where the landfill is that will accept the material—if it is a RCRA landfill that is licensed to accept those types of waste. If you could, I would be interested in getting some more details on what has been identified and what has been agreed upon to disposal areas outside of the bay area, and/or especially the sediment that has been found to have some toxic problems. Would the landfill sight be away from the water? Are both of those still being discussed?

General **Kelly**. Sir, I do not know of any issue between EPA and us, or between the resource agencies and us on any toxic material. That never really has been an issue.

That channel receives maintenance dredging just about every year, so the material from the deepening ought to be fairly clean. I will provide detailed information on any toxic materials for the record, and information on how we are handling it.

There are no toxic or hazardous waste materials associated with the improvement of the Houston and Galveston Bay Ship Channels. Virtually all of the material to be dredged during the project construction consists of virgin material (mostly stiff clay). The Corps of Engineers has carried out a regimen of testing procedures, developed jointly with the Environmental Protection Agency, to assess the potential for contamination of Galveston Bay as a result of the proposed dredging and disposal operations. These tests included chemical analyses of sediments, water, and elutriates; solid, liquid, and suspended particulate phase bioassays; and bioaccumulation measurements. Sediment samples were taken from the channel bottom along its centerline, as well as from sites adjacent to the channel. The tests also included results of chemical analyses of water and sediments before, during, and after an actual pipeline dredging operation in the project area. Almost all of the parameters tested for were not present at the minimum detection limit of the analyses, and the results support a conclusion that the projects would not cause any violation of applicable state or Federal water quality criteria or toxic effluent standards. Such a conclusion is further supported by a long history of dredging and disposal in the project area associated with the maintenance of the existing channel.

Mr. Nowak. As you go, are you going to reconstruct this? I would assume you are going to go wider than you had for the pure navigation.

General Kelly. That is correct.

Mr. Nowak. Portions of it, and in other areas we are finding that some of the accumulation of the heavier PCBs and lead have accumulated, not in the channels, but have accumulated in areas that are adjacent to the shoreline where nobody dredges and so forth. When you start to widen out the channel, the mix of those things may be a problem as far as where they get disposed of. I think confined disposal areas "toxic hot spots" in the Great Lakes, that the work of the Corps is going to be expending in that area, you are going to be running into the same kind of a——

General Kelly. Yes, sir, I believe we will encounter that problem in other areas of the nation but not here.

Mr. Nowak. Once those enlarged areas are considered, you are going to have different kinds of counts, and I know in the Buffalo River there is supposed to be some extensive testing by EPA now going from bank to bank. You know where the areas are that are heavily contaminated because of the—if you just go up the channel you do not hit that material, and a lot of the leaching that has been done, I guess, stays into the bank or near the bank areas, but we would hope that we can find a way to lift it, and either take it to a contained disposal area that is not leaching, or a landfill that has been licensed. I think this will be an interesting start at looking at the different kinds of sediment that are in there, and where it is appropriate to move those sediments.

One other question, I think, generally, can you just describe the cost/benefit ratio variances in many of these areas? I guess there was one that was 23 to 1, and going down to one to one, one to two. I wonder if you could just discuss generally how that ratio is put together for the membership.

General Kelly. I will be happy to explain that. Of course, we have to look at the project purposes, because how we calculate benefits for each purpose is a little different.

In the case of navigation, for instance, the St. Mary's River and Duluth Harbor project did have a very high benefit/cost ratio. The benefits are related to both widening and deepening for a larger ship, and we look at the transportation savings of using the larger ships. They can carry more cargo, but their operating costs are essentially the same. We look at all of those savings, and we calculate those benefits over a 50 year life at the appropriate interest rate. Of course, for the costs, we do the same thing. We add up our first costs, and add up our maintenance costs, and we amortize that as well. Then we compare the two. Then what we do is we look at different alternatives, and that plan which produces the maximum net benefits would be the National Economic Development Plan. Of course, if you do have a positive net, then you are also going to have a positive benefit/cost ratio. We would recommend that plan which maximizes the net benefits.

On flood control, it is a little bit different, because we have a different project purpose. In flood control we look at the benefits that would be provided by reducing flood damages. For example, if you have a flood that would flood up to five feet of a house, then you would have damages, that you can calculate, and sum up for all the houses and businesses affected. Then you look at damages for different flood frequency levels, and again, we would compare that to the cost of building the project, and again, you wind up with a National Economic Development Plan.

Mr. HAMMERSCHMIDT. Will the Chairman yield?

Mr. NOWAK. Surely.

Mr. HAMMERSCHMIDT. On that subject matter, I think General, you mentioned that maybe you are rendering a new cost estimating procedure? Is that so? Would you elaborate on that a little?

General KELLY. Under our previous system, we would make a rough cost estimate during the feasibility report. On a flood control project, we would use empirical data to look at the cost of levees or a dam; we would do some geotechnical work, but not much. We have never felt very comfortable about that. Now, it is unacceptable, since Congress in the 1986 Water Resources Development Act, specifies in section 902 that there is an upper cost limit. If we exceed that cost by 20 percent, we have to come back to Congress for a new authorization. Because of that and the pressure of just doing a better job, we have decided to spend more time up front in calculating the cost of a project. We developed a system which we call MCACES to do just that. We will probably be doing some preliminary engineering work during our feasibility study and spending a lot more time to make sure that the cost we come up with up front is the cost that we are going to be living with for the rest of the project, and hopefully will not have to come back to this committee or your counterpart in the Senate for a post-authorization change.

Mr. HAMMERSCHMIDT. Now the sponsor would have to pay for what, 50 percent of that?

General KELLY. Yes, sir, it would. The sponsor is interested in it, because he does not want that cost to rise. The sponsor must share that construction cost, so we have received a lot of enthusiasm and support for our new techniques from our local sponsors.

Mr. HAMMERSCHMIDT. Thank you.

Mr. NOWAK. Thank you very much. Let me turn to Mr. Laughlin for any questions he may have relating to the subject reports that we have.

SARGENT BEACH PROJECT

Mr. **Laughlin**. Thank you, Mr. Chairman. Mr. Chairman, I wanted to ask some more about Sargent Beach. Is the nature of this only to the report General Kelly has furnished us that we have been looking at?

Mr. **Nowak**. I am just wondering if the General would be prepared to answer those questions related to that project.

Mr. **Laughlin**. I just have one broad question and not to a specific on that project, General Kelly, if I could proceed.

General **Kelly**. Surely.

Mr. **Nowak**. We will put it on the record and then we can obtain the information if it is not available.

Mr. **Laughlin**. General Kelly, I understand that the stage where we are now on Sargent Beach is that there will be a feasibility study, and following the feasibility study, there be a construction study. I wanted to inquire into the possibility of including both of those in one study, because of the timing involved in doing the two studies back to back, and the urgency many in the area feel—and the corps may not feel that urgency—but with the band between the waterway and the open gulf narrowing as we speak, I just wanted to find out if it was possible to combine the two studies.

General **Kelly**. I don't know where Sargent Beach is in the system, and I, as the Chairman said, will provide that detail for the record.

But you have identified an excellent point, something that Mr. Hammerschmidt would appreciate as well. In order to get a better cost estimate, we are going to be doing more engineering up front, as I noted earlier. To accomplish that, we have decided that it no longer makes sense to do two different studies. Effective September 1, our feasibility study, and what we call our general design memorandum, which is what you could call our construction study, will now be combined into one document. That will save time, and it will certainly help us get a more definitive cost estimate as well. From now on, we are going to have just one study.

Mr. **Laughlin**. Is that September 1, 1989 or September 1, 1990?

General **Kelly**. It is September 1989.

Mr. **Laughlin**. Okay, so that will take care of my problem.

General **Kelly**. I have got to find out where the Sargent Beach study is in the system. If the feasibility was already completed, we would have no other choice but to prepare the general design memorandum. I will look into this matter and provide, as the Chairman has asked, that information for the record.

Sargent Beach, Texas, is located in Matagorda County between East Matagorda Bay and Cedar Lakes, approximately 170 miles north of Corpus Christi and 20 miles southwest of Freeport. There is a serious erosion problem in the Sargent area which will, if not addressed in the near future, adversely affect the economically important Gulf Intracoastal Waterway (GIWW).

This portion of the GIWW parallels the Gulf of Mexico shoreline for about 7 miles and is separated from the Gulf by a land barrier varying in width from about 650 feet to 950 feet, as measured in January 1989. The erosion rate in this reach varies considerably from year to year. The long-term rate of erosion in this area is presently estimated to be 33 feet per year, although short-term rates have exceeded 50 feet per year.

Over 17 million tons of commerce move through this reach of the GIWW annually. A breach of the land barrier could require this tonnage to be transported by other means, or it could require a major maintenance effort to continue navigation. All other alternative modes are more costly even if the present transportation network could handle this volume of traffic.

Reconnaissance phase studies were initiated in November 1988 under authority of Section 216 of the 1970 Flood Control Act and were completed in November 1989. The reconnaissance studies evaluated the feasibility of protecting the existing alignment. This would involve a buffer zone of at least 300 feet between the Gulf and the GIWW. This would prevent shoaling from the frequent above normal wave conditions which could occur if the channel and Gulf were not adequately separated and would save most of the residences remaining on the island. Using the erosion rate of 33 feet per year, the buffer zone would begin to erode in less than 10 years or sooner if a major storm strikes the area.

Review of the reconnaissance report is expected in the third quarter of Fiscal Year 1990. Future studies will evaluate a full range of alternatives. These alternatives would include realignment of the waterway and evaluating other coastal-type structures to protect the waterway in place. The studies will include sufficient engineering and design to assure a reasonable baseline cost estimate.

Mr. LAUGHLIN. Thank you, General Kelly, and thank you, Mr. Chairman.

Mr. NOWAK. Thank you. We will now turn to Mr. Hammerschmidt from Arkansas.

Mr. HAMMERSCHMIDT. General, it appears that the Corps of Engineers is returning to, and placing more emphasis on, environmental initiatives and impacts as was stated by Secretary Page and was stated by you. I imagine you are doing a lot of this administratively—you may need some legislation to follow through, but how would the corps respond to a legislative proposal to add the environmental protection as a mission of the corps? Are you in a position to answer that?

General KELLY. Environmental protection, of course, is the responsibility of another agency called the Environmental Protection Agency. We have developed under Secretary Page's leadership a really close relationship with the EPA on permit issues, Superfund, and solid wastes. Currently, we are working very closely with that organization.

Mr. HAMMERSCHMIDT. Well, I realize that that is a very broad policy question. If you want to expand on it for the record, we would welcome that.

General KELLY. I will be happy to provide that for the record.

Presently the Corps of Engineers has a number of environmental authorities that can greatly improve the environmental aspects of our water resources program. For example, Section 1135 of the Water Resources Development Act of 1986 (WRDA '86) allows us to examine the operations and structures of existing projects for the express purpose of modifying them environmentally in the public interest. Section 906(b) of WRDA '86 authorizes us to conduct mitigation at projects to be constructed, currently under construction, and those that have been constructed. Section 906(e) of WRDA '86 authorizes us to enhance habitat for species of economic importance, endangered species, and species that reside on national wildlife refuges at full federal cost. Section 704 of WRDA '86 authorizes us to create fisheries habitat and Section 150 of the Water Resources Development Act of 1976 authorizes us to create wetlands using dredged material. These specific authorities are in addition to our complying with the numerous environmental statutes under which we operate, e.g., NEPA, the Clean Water Act, the Fish and Wildlife Coordination Act, the National Historic Preservation Act, the Ocean Dumping Act, etc.

Over the past year, the Corps has refocused on environmental needs in its research and development, civil works, and military programs, as well as in its "support for others" efforts, with the intent of enhancing the environmental aspects of these programs. The Corps is committeed to the concept of environmentally sustainable development as a cornerstone of its basic mission. The Corps takes pride in its environmental engineering expertise and could provide a major service in this capacity to other Federal agencies. If the Congress and the Executive Branch elect to add and fund a new mission for environmental protection and improvement for the Corps, the Corps has the engineering, scientific, and management capability to carry out such a program.

Mr. HAMMERSCHMIDT. Let me ask you a specific question. Could you give us a brief status on the McAlpine Lock and Dam study. I understand it is at the Washington level, but does not as yet have a chief's report. I just wondered if you could respond now, or for the record, how soon do you anticipate the chief's report on this project.

General KELLY. That is a fairly hot item. That is one of the new locks and dams that we proposed on the Ohio River, and it is near Louisville. It has now been sent by our Ohio River Division to Washington, and we have an organization called the Washington Level Review Center which is reviewing it right now.

We will have a Board of Engineers of Rivers and Harbors meeting in the spring at which that project will be presented. After it is reviewed by the Board, it will go through review in my office, then it will be sent to the Secretary, Unless there is some problem that I do not know about and if we are lucky, we might get it through the system by this summer.

Mr. HAMMERSCHMIDT. Thank you. Just one more question. A question with a little more pizzazz than these dry flood control projects. I noticed that in the Secretaries written statement, he talked about magnetic levitation, and MAGLEV initiatives, and I just wondered if, while you are here, if you wanted to talk a little bit about MAGLEV. Are you prepared to do that?

General KELLY. Oh, yes, sir. I'll be happy to.

Mr. HAMMERSCHMIDT. Can we open up that subject for just a minute? How can the corps be involved in that?

General KELLY. Well, we think we have a very important role to play in that. Senator Moynihan, on the Senate side, about a year and a half or two years ago, became quite an advocate of that particular technology. For the rest of the committee, magnetic levitation is a new method of propulsion which uses magnetic fields, either attractive or repulsive forces. It can be set up in such a way that a vehicle, not necessarily a train, but a vehicle like a train can be elevated on a guideway without ever touching the guideway. Then you alternate those fields along that guideway such that you can propel that vehicle at speeds up to 300 miles an hour in a very smooth, and environmentally benign, and probably economical mode.

The whole concept of magnetic levitation was pioneered here in the United States in the mid 1960s at Brookhaven National Laboratories by two American physicists. We, the government, became interested in that and allocated some money through the Department of Transportation to do some research. However, in the 1975 or 1976 time frame, we lost interest and emphasis was placed on development of high speed rail system, that is wheel on track. So that is where our efforts went.

But the Germans and Japanese became infatuated with MAGLEV and realized that it had considerable benefit to Europe and the world. They have invested hundreds of millions of dollars, if not billions, in the last 10 years. The Germans have already built their seventh prototype. The Japanese are working on their own prototype using a different concept.

We were asked last year by Congress to begin to look at MAGLEV and received some monies to do that. We requested $3.5 million for fiscal year 1991. The Department of Transportation requested $6.1 million. So, we will have a $10 million program. What we have done under President Bush's initiative is to combine the corps and Department of Transportation efforts—to see if we can develop, by the turn of the century, a second generation system beyond that which is being built by the Germans and the Japanese.

We have recently formed a partnership in which we are coordinating the technical assessment of this particular system. The Department of Transportation through the Federal Railroad Administration will be looking at the policy and safety issues, its economics, and the marketability of this system. That partnership is in place. We are about to sign memorandum of agreement among the agencies that have a key role to play to see if we can do something about building a second generation system for this country.

Mr. HAMMERSCHMIDT. Is their any pending authorizing legislation, or does it just go straight to the appropriations committee for that kind of thing.

General KELLY. No, sir. Because this is outside of our normal water resources mission, we in the Corps of Engineers, really need authorization to continue. We have authorization to do some preliminary research, but to continue and to involve other Federal agencies, we really cannot do that without some additional legislation.

Mr. HAMMERSCHMIDT. Should we be drafting a major bill in concert with engineers in DOT and——

General KELLY. Yes, sir, we would really appreciate that.

Mr. HAMMERSCHMIDT. Thank you.

Mr. NOWAK. Let me just ask a couple of questions relating to this. The Japanese development and the German development—the prototypes are up and running? There are no lines that are actually servicing at the present time using this technology?

General KELLY. No, sir, the Germans built a test track. The Japanese have a short test track and are in the process of building a larger one. Here in this country, there are three very active areas right now. The Florida High Speed Rail Commission is proposing and has accepted bids on building a MAGLEV system from Orlando Airport to International Drive. I believe the Japanese and the Germans have gone into a joint venture on that.

There are two other areas that are actively considered MAGLEV systems. One would connect Los Angeles to Las Vegas and the other would be regional network centered around Pittsburgh.

Mr. NOWAK. What is the status of that? Is it a private development?

General KELLY. There are still is in the developmental stage.

Mr. HAMMERSCHMIDT. Would that also be Japanese technology?

General KELLY. As I understand it, they plan on using German technology.

It is a tremendous market. While the market really does not exist in Europe nor does it exist in Japan. They have developed, and have spent considerable capital, on high speed rail. There are some MAGLEV possibilities, perhaps, to connect airline hubs to some central cities in Europe, but the real market for a MAGLEV system is here in the United States, and the economics are very good for a system anywhere between a hundred and six hundred miles.

The Europeans and Japanese recognize this, and that is why you see a lot of marketing going on by those countries.

Mr. **Nowak**. From your work in this area, has DOT committed any funds for the Las Vegas/Los Angeles——

General **Kelly**. No, sir. That is strictly a private venture as is the Orlando venture.

Mr. **Nowak**. Do you know who is sponsoring that development out in Las Vegas?

General **Kelly**. The California-Nevada Super Speed Rail Commission is accepting proposals. Several joint ventures of very large companies, some of which are European, paired with U.S. firms, may be bidding on this project.

Mr. **Nowak**. It is my understanding that the technology is such that when you look at the corridors in the East between Boston and New York, and between New York and Philadelphia, and Philadelphia and Washington, DC, the time frames between those and flying and the present systems that we have, that you could actually convert existing railroad beds and use them as your corridor. Has that progressed any?

General **Kelly**. That is why I talk about a vehicle on a guideway rather than a rail, because you have some other alternatives, and that is what we are going to be looking at in our study during the next two years. It does not necessarily have to be in a railroad bed. It could very well go on one of our interstate highway systems. It turns out that this approach may be more feasible than along an existing railroad bed which is now being used. That is what makes it so interesting, because you are into a whole new mode of transportation.

Mr. **Nowak**. And you do not need a guide where you need the right of way. Is that what you are saying?

General **Kelly**. That is correct. In many cases, MAGLEV guideways could use existing rights-of-way.

Mr. **Nowak**. Well it will be interesting to follow, of course, we will also have the DOT review of that.

General **Kelly**. Yes, sir, and I might point out that we have established a good relationship with DOT.

Mr. **Nowak**. Okay. Thank you very much. Let me turn to Mr. Parker from Mississippi.

MISSISSIPPI PROJECT

Mr. **Parker**. Thank you, Mr. Chairman. Thank you for being here, General Kelly. You and I have had some correspondence on a project in Mississippi, and I would like to talk about that a little bit. By the way, if you use one of those magnetic trains on one of the interstate systems in Mississippi, with our shifting clay, we have some bumps that would make it airborne. I want you to be aware of that.

I looked through your testimony and you did not mention the Pearl River.

General **Kelly**. No, sir, I did not mention it.

Mr. **Parker**. Well, I am real interested in that. We have had major flooding in 1979 and 1983, and as you know, the corps came up with a plan, the Shoccoe Dam—it fell apart. Primarily it fell apart because it was not designed properly and not because it was not a good idea. It fell apart because there was no political consensus built. Tell me the name of the plan you have now.

General **Kelly**. If I could just take a minute, I would like to review its history with you. As you know, I was the District Commander in Mobile District from 1982 to 1985, and at that time the northern part of the Pearl River, was still under the Mobile District. We put together a plan during the feasibility study for the Shoccoe Dam. I literally spent the whole year in and around Jackson and all the neighboring counties trying to build a consensus for that project. But, for the reasons that you have stated, it never really matured.

As I understand it, the Vicksburg District is putting together a plan looking at local levees for Jackson, Mississippi area.

Mr. **Parker**. Now I want to make some points. I understand the system too. What is the name of the plan right now?

General **Kelly**. Sir, I don't know the exact name.

Mr. **Parker**. Basically, it is the Pearl River/Jackson Metro Plan. Now, the reason that the Shoccoe Dam failed, the reason it fell apart, was because there wound up being two different groups fighting. One was Jackson, and the other was everyone outside of Jackson.

General **Kelly**. That is correct.

Mr. **Parker**. So as you wound up, people north of Jackson in the rural areas are saying you are not taking care of us, you are taking care of Jackson; people south of Jackson are saying you are not taking care of us, you are taking care of Jackson.

The consensus could not be built, therefore it fell apart.

Now we have a situation where we have a new plan, and that plan is targeted toward Jackson. In order to have the cost sharing that is required, we have to have what is called the Pearl River Basin Development Authority itself, which is a group that comes together, and it includes those counties that surround Jackson in the rural areas. All of a sudden, we have this one project that is aimed toward Jackson, and the problem needs to be alleviated, but at the same time it does not take into consideration those counties south of Jackson.

As a matter of fact, whenever the recon study which the corps did and presented to the Pearl River Basin Authority—they showed a map, the map ended at Byron, which is Hinds County just south of Jackson—it did not include those counties south of there, which you are familiar with, of Simpson, it did not include the county of Lawrence, or Marion, they were not included, but they are the ones that are going to be paying for it. They are going to be paying part of it.

So all of a sudden, we are winding up in the same position that we wound up in with Shoccoe. We are not building up a consensus, because it is them against us. Now I realize that the purpose of the corps is to solve specific problems as far as flooding, and that is what you want to do. We have a severe problem in Jackson. What are you doing as one of the leaders in the corps as far as understanding, and also getting your people understanding, that consensus must be built for us to even have that project, that those people south of Jackson must be considered before we can build that consensus.

What are you doing in that regard?

General KELLY. That is an excellent question. Thanks to the Water Resource Development Act of 1986 we have learned in the last three years, that the Corps of Engineers should not be the proponent of a project. It should be a local sponsor who should pull together the political support for a project, not the Corps of Engineers.

The reason Shoccoe failed, at least in my view, was that the Pearl River Development Authority did not build a consensus of all the counties. Because they could not do that, we were then asked by the Development Authority and the City of Jackson, to come up with another project, which was levees. The Shoccoe Dam, which could have provided flood protection for a good portion of the northern counties, the City of Jackson, and everything south of that, just could not make it.

What I would propose, and have told our Lower Mississippi Valley Division and our Vicksburg District, is that they have to get the local interests, the Development Authority, the City of Jackson, and the counties to work together to build up a consensus for a project.

Mr. PARKER. Okay, that is true, but understand that before that project—see what we are doing is a recon study, and then feasibility study, but we have those counties down there that are being left.

Let me give you the first question that was asked at the meeting. Now, we have a lot of people on that committee, and they are just country people, but they understand water. They understand how it flows. You have this guy down in Lawrence County, and the first question he asks is how much water will it put on us. One of the engineers, very analytical, and there is one thing about the corps, they are very analytical, but being—my wife is a draftsman. She is analytical too, but sometimes I have to put some common sense in this thing too—this engineer says you won't have any more water. You have the same amount of rain. Then this elderly man says, "Boy, whenever the water comes down faster, it can't leave as fast, and it rises. Now how much more water are we going to have?" And sure enough, he says, "It's negligeable. We're thinking one to two and a half inches."

He said, "Negligeable goes up in people's houses at two and a half inches."

You see, this guy is not an engineer, but he does understand water. The point is that those people down there know that it will solve the problem in Jackson. People in Jackson know that it will solve their problem. But those people south of Jackson know that it is going to come into their houses. Even though that problem is being solved, the burden is being put on them, because that water is going to be down on them. The corps has got to do something. Now realizing that the corps can not solve all of the flooding problems south of Jackson with this project, I think it would be cost prohibitive. There is no way that you could put a levee system all the way down. Now, I am going to be perfectly honest. What I have said is, look, you get the water down to the Louisiana line, and I will quit fussen'. All right.

But the point is that these people——

General KELLY. The other people may differ with you on that.

Mr. PARKER. That's theirs. I'm going to let them worry about it. The point is that in those southern counties, something has got to be done to help give some relief. I am not saying solve all of the problems, because you cannot do it economically. From a feasibility standpoint, it won't work. The costs ratio—but from the standpoint of having something for them, there must be something done to help them in some way. There are things that can be done? Is the Corps looking at that?

General KELLY. That I do not know for sure, but I believe that our studies show that there will not be increased flooding downstream.

Mr. PARKER. That is something that the Corps should be looking at.

General KELLY. What I would suggest is that the Development Authority, which is our local sponsor for that whole area, meet with General Williams——

Mr. PARKER. I have already talked to him about that——

General KELLY. Our Vicksburg District also needs to get together with the Development Authority to discuss local problems, because they are going to have to share the cost. I think that is an excellent idea.

Mr. PARKER. My time is up. I just wanted you to know just how concerned I am about this, because we are going to wind up with recon study, a feasibility study, and no project initiated, because we cannot get this consensus built. Unless we do it now, it will be too late down the road. The problem is still there, and it needs to be solved. We have studied this thing for 10 years, and we know there is a problem and it needs to be solved. Any help that you can give us in rural Mississippi and in Jackson, we would appreciate. I apologize to the other members of the committee for taking time, but this is an important thing in our district. Thank you very much.

General KELLY. Yes, sir.

Mr. NOWAK. Perhaps we could have a general review with Mr. Parker's input, and where and how the corps could respond and if the district engineer who is working on the problem could be made available.

General KELLY. Yes, sir.

Mr. NOWAK. Could he be made available for that kind of review, so that we could see if there is anything further that we can do in the process?

Let me now turn to Mr. Cox.

Mr. COX. I would like to thank each of you, General Kelly, Assistant Secretary Page, and Dr. Dickey, for spending so much time with our Committee here this morning.

I'm particularly interested in your testimony concerning MAGLEV development. You may be interested to know that in

Orange County, California, we are looking into solving our airport capacity problem by building high speed, surface transportation to a site inland, beyond the mountains, where we can build an LAX-size international airport. In this way, we can use hi-tech surface transportation to carry people from the coastal areas to an inland airport where the "not in my back yard" syndrome is not such a problem, and where the land values are lower.

Also, I look forward to working with the corps on the Santa Ana River Flood Control project, which this committee authorized some time ago, but which we were unsuccessful in getting appropriations for until this year. That is going to be a continuing problem in the future—a continuing challenge, I should say—and I look forward to working with you on that.

Finally, I will submit some questions for the record with respect to the corps' new proposals for cost sharing, particularly as it relates to water conservation. I have successfully worked out an arrangement with Secretary Page with respect to Orange County's water conservation concerns, but I think that there are national implications of the new proposal. It seems to me, therefore, that the new proposal ought to be advanced in the form of proposed regulations subject to public notice and hearings, and presumably comment by this committee.

Again, I would like to thank all of you for spending so much time with us this morning.

General KELLY. Thank you, sir.

Mr. NOWAK. We will have another meeting on these when we hear from Members of Congress and others relating to some of the projects that they are concerned with, and we will be able to follow the process as you clear, and have other projects that have been mentioned here come before us, and cumulatively keep channels open with your program people, so that we can have an easier time as we reach into the final conclusions—if we can bring that kind of a focus to it, I think it will make it a lot easier on that last month where all kinds of requests and problems seem to crop up. We would like to be able to bring those to your attention earlier, and work with members, and work the process so that everybody understands that when the bill hits the floor why we have the amount of programs and projects in the bill. It was successfully done two years ago, and I hope that we can do the same thing this year.

Again, thank you for the information. We will be back in touch with you as we go through our other hearings, and other people bringing subject matter to our attention. I hope that we can have a smooth session as we try to develop this, and the other projects that come through the system. If we have any other questions we will get back to you. Some may be of oral nature, and others we would like the answers to be in writing.

Again, thank you, and thank you for being so well prepared, and for bringing us up to the point and time that we are now with each of your projects. We will come back again on this matter, and hopefully, be able to get a lot of the problems worked out well before hand, so we don't have a big surprise for anybody as we go down the line, and you can clear projects through the whole system, as they say.

General **Kelly**. We certainly appreciate your leadership in this whole area and the interest of the whole committee. We thank you.

[General Kelly's responses to questions from Hon. Stangeland follows:]

ANSWERS TO QUESTIONS BY CONGRESSMAN STANGELAND
ENVIRONMENTAL PROTECTION

QUESTION. It appears that the Corps of Engineers is returning to and placing new emphasis on environmental initiatives and impacts. How would the Corps respond to a legislative proposal to add environmental protection as a mission of the Corps?

ANSWER. Presently the Corps of Engineers has a number of environmental authorities that can greatly improve the environmental aspects of our water resources program. For example, Section 1135 of the Water Resources Development Act of 1986 (WRDA '86) allows us to examine the operations and structures of existing projects for the express purpose of modifying them environmentally in the public interest. Section 906(b) of WRDA '86 authorizes us to conduct mitigation at projects to be constructed, currently under construction, and those that have been constructed. Section 906(e) of WRDA '86 authorizes us to enhance habitat for species of economic importance, endangered species, and species that reside on national wildlife refuges at full federal cost. Section 704 of WRDA '86 authorizes us to create fisheries habitat and Section 150 of the Water Resources Development Act of 1976 authorizes us to create wetlands using dredged material. These specific authorities are in addition to our complying with the numerous environmental statutes under which we operate, e.g., NEPA, the Clean Water Act, the Fish and Wildlife Coordination Act, the National Historic Preservation Act, the Ocean Dumping Act, etc.

Over the past year, the Corps has refocused on environmental needs in its research and development, civil works, and military programs, as well as in its "support for others" efforts, with the intent of enhancing the environmental aspects of these programs. The Corps is committed to the concept of environmentally sustainable development that is inherent in its basic mission. The Corps takes pride in its environmental engineering expertise and does provide a major service in this capacity to other Federal agencies. Addition of any new mission to the Corps would require the commitment of additional financial and personnel resources if traditional missions are not to be adversely affected.

SECTION 150 WETLANDS CREATION

QUESTION. What recent steps has the Corps taken to promote wetlands restoration and creation activities? Specifically, how is the Corps utilizing section 150 of the Water Resources Development Act of 1976?

ANSWER. The Corps has not used section 150 to any extent as funds to cover extra costs for wetlands creation under this section are taken out of project funds. Because of the very tight funding restrictions for our O&M dredging program, there are not enough funds to utilize section 150 without significantly impacting the on-going dredging program.

UPLAND AREA MANAGEMENT

QUESTION. How is the Corps managing upland areas at Corps projects to enhance the wetlands protection effort?

ANSWER. The Corps promotes good stewardship of project natural resources. Divisions and districts are considering more and more the overall ecosystem concept to natural resources, whether they are considering long-term management strategies for dredging or more efficient management approaches to Corps reservoir and waterway properties. However, the current national emphasis on the ecological importance of wetlands highlights a need for more attention to wetlands in the Corps natural resources management program. Therefore, a stewardship and management research element is included in our wetlands research program.

OTHER WETLANDS CREATION ACTIVITIES

QUESTION. How many artificial wetlands creation projects has the Corps been involved in and what future plans does the Corps have to become more involved? Is the Corps coordinating with TVA's wetland construction program?

ANSWER. The Corps has created or restored over 40,000 acres of wetlands as a part of its beneficial uses of dredged material program alone. These wetlands are associated with many individual projects all over the country and include almost all types of wetlands. The Corps will continue to construct wetlands, as appropriate, as part of the on-going civil works program. Under the Wetlands Research Program, the Corps will continue to investigate and update wetlands restoration and construction techniques for use in Corps projects, the regulatory program, and the beneficial uses of dredged material program. The Tennessee Valley Authority is carrying out a demonstration program on the use of wetlands for wastewater treatment. They are primarily converting degraded mining areas or other degraded uplands to wetlands for these demonstrations. where any placement of fill material in waters of the U.S. is involved, the TVA must obtain a Section 404 permit from the Corps.

PROJECT ENVIRONMENTAL ENHANCEMENT

QUESTION. How many times has the Corps utilized authorities under section 906(e), section 907 and section 1135 of the Water Resources Development Act of 1986? What specific plans do you have to take advantage of these opportunities in FY 91 and beyond?

ANSWER. Section 906(e) has been utilized for elements of five different projects. Section 907 has been applied to several projects, but none have been recommended for construction. Section 907 requires that when a justified environmental enhancement feature is added to a project, benefits equal to the costs of the feature are added to total project benefits. Funds have been appropriated for two projects under section 1135. In addition, $5 million has been requested in the President's FY 1991 budget to fund a number of section 1135(b) demonstration proposals. We are also requesting this program be authorized five more years to 1996. Sections 906(e) and 907 are permanent authorities and will be considered, as appropriate, in the Corps civil works program as opportunities arise.

MAGNETIC LEVITATION PILOT PROGRAM

QUESTION. Can you give us a little more information about your magnetic levitation (maglev) initiatives? Furthermore, do you think the Corps should be the lead agency in this field? What can Congress do to help the development of this new mode of transportation?

ANSWER. The Corps, in cooperation with the Federal Railroad Administration and the Department of Energy, is developing a unified Federal initiative for MAGLEV. The Corps portion of the initiative will focus on developing a second-generation U.S. MAGLEV technology that would utilize the strengths of U.S. industry and would improve upon the existing foreign systems. The goal is to have an advanced U.S. design, tested and ready for commercial implementation in the U.S., by the year 2000. We propose to begin the research and development process by having industry prepare, on a cost shared basis, several different concept designs during FY 91. In the same time frame, a variety of assessments on critical technologies, potential markets, availability of private sector financing and health and environmental effects would be conducted by the Corps and other Federal agencies. In FY 92, all of this information would be compiled with recommendations on the potential market for MAGLEV in this country, the potential for developing a domestic technology that would leapfrog existing designs, and the appropriate roles of the public and private sectors in such a development effort. We do not envision a Federally owned or operated MAGLEV system and the appropriate Federal role will be based on this philosophy.

Each of the Federal agencies involved in MAGLEV brings a unique set of talents and resources to the program. We believe the Corps is best qualified to manage the Federal role in the technology development portion of the program, including any Federal participation in the design and construction of a demonstration project. We also recognize that the Department of Transportation is the appropriate agency on national transportation policy, transportation economics, corridor and right-of-way issues and safety and operating standards. The coordinated interagency team approach will likely continue through FY 91 and FY 92, and if successful, may continue through later phases of the program to coordinate the private sector's efforts. If there is a substantial Federal role after FY 92, it may be appropriate to designate a lead agency for some or all of the future MAGLEV tasks, or it may be appropriate of consider establishing a joint project office that would have its own contracting authority.

The Corps will need authorizing legislation in order to proceed with detailed technical work on MAGLEV and to enter into cost-shared partnerships with private industry to develop concept designs. A legislative proposal providing such an authorization has been submitted as part of the Army's FY 90 legislative package. Continued Congressional support and funding, from all of the committees involved, will be needed for the Federal initiative to be successful.

PERMIT FEES

QUESTION. The President's FY 91 budget request refers to increased permit fees. What legal authority does the Corps have to significantly increase fees for section 404 and section 10 permits? What is the proposed time frame for doing so?

Please specify what the proposed cost increases would be for permits. How would ability to pay and undue burden factors be taken into account? How would the receipts be used? Could we expect swifter permit processing, improved consultation and communication as a result of increased fees?

ANSWER. The Corps collects regulatory fees under the authority of the Independent Offices Appropriation Act, 31 U.S.C. 9701. During 1988, the Department of Defense, Office of the Inspector General, conducted an audit on "user charges" and included the Corps regulatory fee program in its studies. The report concluded that the Corps should charge higher fees to recover costs associated with the evaluation and processing of applications for Corps permits.

The proposed changes to Corps Regulatory fees must still be coordinated through the Federal rulemaking process. That process is expected to begin during May or June 1990 and should be concluded prior to October 1990. We envision that receipts from the fee program would go to the U.S. Treasury as an offset to the Federal cost of operating the program. There would be no change in the timeliness or quality of the services rendered as the fees engender no change to the staffing or capability of the program's resources.

COST ESTIMATING

QUESTION. General Kelly, could you elaborate on the new cost-estimating procedures and practices pursuant to the life cycle project management program? What is the need for such a change and what will be its impact?

ANSWER. The new cost estimating system, being implemented under the life cycle project management program, is known as the micro-computer aided cost estimating system (M-CACES). The system is currently being used for developing military construction estimates, however, new items are presently being added to the system to accommodate civil works projects (i.e. levees, locks, etc). Once the civil works activities are available and adapted to the M-CACES software, we will have a uniform system for civil works estimating. Omissions and unit prices that were too low have resulted in many of the feasibility study cost estimates being much too low. The new process also calls for an inclusion of an appropriate contingency factor considering the risk and uncertainty at a particular stage in the development of a project.

Due to past cost estimating procedures and practices many estimates were not developed to the level of detail required to establish an accurate baseline estimate. This made it very difficult to properly manage the costs of a project. It also increased the chances of a project exceeding the maximum project cost limit established by Section 902 of the Water Resources Development Act of 1986. Thus came the need for a system, such as M-CACES, that would not only provide a more realistic estimate, but also be helpful in effectively managing the project costs and schedules. Some of the advantages of the M-CACES system are as follows:

- The uniform system will allow each review level to evaluate the estimate more easily.
- Labor, material, and equipment costs will come from a common data base, which will be established by geographical regions within the U.S.
- Manual entries can be used if local situations dictate.
- Data on similar project estimates can be maintained for reference.
- The overall quality and accuracy of the estimates will be improved, and become more realistic.
- The system will provide a more efficient and effective method for managing and tracking the project costs.

INFRASTRUCTURE ADVISORY BOARD

QUESTION. We have heard a little about the Corps proposed Federal Infrastructure Advisory Board. How do you perceive federal agency involvement in this Board? How do you define the roles of each agency in the area of infrastructure and who should be the chief players? What are the constraints to these roles?

ANSWER. We have discussed the merits of establishing a Federal Infrastructure Advisory Board and have not recommended it, since much can be accomplished among Federal agencies without a formal board.

QUESTION. How can the benefits associated with infrastructure be used to evaluate and prioritize federal investment?

ANSWER. Determining which infrastructure projects have the greatest benefits in relationship to costs can be useful input to all infrastructure managers and decision makers in deciding priorities for construction, maintenance, and rehabilitation. During these times of high budget deficits, such information would be invaluable in helping to determine where to put scarce Federal resources.

QUESTION. How is the Corps planning to make the public more aware of the problems of infrastructure?

ANSWER. There are a number of ways by which the public can be made aware of the Nation's infrastructure problems. Congressional hearings are useful for this purpose. Conferences and symposiums highlighting specific infrastructure issues also serve to inform the public. The Corps testified at a House hearing on infrastructure in March and has been asked to participate in a series of colloquia to focus national attention on infrastructure-related problems. Participation in roundtable discussions, workshops, and panels provides other opportunities which the Corps will pursue in an attempt to keep needs and issues before the public.

QUESTION. How do you perceive the private sector's role in aiding the Federal Infrastructure Advisory Board to meet their goals?

ANSWER. Addressing the Nation's infrastructure needs will require a partnership between the public and private sectors since neither sector can accomplish this monumental task on its own. One of the primary roles for the private sector will be to assist in providing the means to finance the construction, maintenance, rehabilitation, and operation of our infrastructure. The private sector can also make an important contribution by developing and using new technologies in infrastructure, assisting in the diffusion of that innovation, increasing use of low capital techniques to deliver services and by improving the performance of those infrastructure facilities owned and operated by the private sector.

QUESTION. Would the Corps assistance with localities in major rehabilitation of flood control projects (particularly levees) aid in the goals of this Federal Infrastructure Advisory Board?

ANSWER. The Board will be involved in the development of an integrated national infrastructure policy and a strategy to carry out that policy. Assisting localities with rehabilitation of flood control projects is something the Corps can accomplish under its existing authorities and while we consider flood control projects to be part of the infrastructure, it is likely to be something the Corps will do outside the purview of the Board.

BENEFICIARY PAY PROPOSALS

QUESTION. Could you elaborate on the beneficiary pay proposals in construction that you mention on page 5 of your testimony?

ANSWER. There are no new construction beneficiary pay proposals in the Fiscal Year 1991 Budget request. Although there are no new proposals, the Fiscal Year 1991 Budget continues the cost-sharing and financing principles established by the Water Resources Development Act of 1986. The preservation of cost sharing, without exception, is important if we are to instill confidence in our project sponsors that all sponsors will be treated the same when it comes to determining project cost sharing and financing. The total level of non-Federal contributions continue to rise as the enhanced cost-sharing established by the Water Resources Development Act of 1986 applies to a greater portion of the projects under construction. The increased cost-sharing demonstrates that non-Federal sponsors, our partners, are willing to pay their share to construct projects that are needed now and are economically and environmentally sound.

MCALPINE LOCK STUDY

QUESTION. Could you give us a brief status on the McAlpine Lock Study? I understand is at the Washington level but does not yet have a Chief's report. How soon do you anticipate completing the Chief's report on this project?

ANSWER. The feasibility report is currently at the Washington Level Review Center (WLRC). The WLRC manages the consolidated, concurrent review of feasibility reports undertaken by the Board of Engineers for Rivers and Harbors (BERH); Headquarters, U.S. Army Corps of Engineers; and the Assistant Secretary of the Army for Civil Works. The Washington level review process is scheduled for completion in May 1990. Assuming no adverse comments from the on-going 90-day mandatory state and agency review (part of the Washington level concurrent review), and the above mentioned reviewers, the report would be presented to the BERH members at the 21 June 1990, BERH meeting. Assuming a favorable BERH recommendation the Chief's report could be signed within 30-days of the BERH's report.

CROSS FLORIDA BARGE CANAL

QUESTION. What is the status of the Cross Florida Barge Canal deauthorization? Please provide the Committee with a position on H.R. 3905, which would modify the existing provision in the Water Resources Development Act of 1986.

ANSWER. Section 1114 created the Cross Florida Conservation Area and provided that the Secretary of the Army would acquire all lands and interest for the Barge Canal held by the State of Florida for the Conservation Area. The Corps was to develop a comprehensive management plan for the Conservation Area. The 1987 Supplemental Appropriations Act directed that $5 million be used to initiate land acquisition for the Conservation Area. In response, in August 1988, a report was produced on real estate and legal issues associated with the implementation of Section 1114. A draft management plan was also prepared and circulated for agency review in September 1989. The State strongly opposes implementation of the management plan and Corps ownership of the Barge Canal lands. Since the State will not transfer the lands, Section 1114 cannot be implemented.

We do not object to H.R. 3905 provided it is modified to address and clarify several technical issues. For example, land transfers resulting from deauthorization should not result in any net cost to the Federal Government. To the extent that Federal funds were used to purchase project lands, the State of

Florida should repay the United States. In addition, the GSA has additional considerations which they may communicate directly to you.

AUBURN DAM

QUESTION. What is the status of the Auburn Dam Project in California?
ANSWER. Construction of the 2.3 million acre-feet (ac-ft) multi-purpose Auburn Dam Project was authorized in 1965 under PL 89-161. Construction was initiated by the U.S. Bureau of Reclamation in 1968. On August 1, 1975 a 5.7 Richter magnitude earthquake occurred near Oreville, California, about 40 Miles northwest of Auburn. Construction was suspended pending further seismic evaluations. Even though Auburn Dam was determined to be seismically safe (with certain design modifications), construction has not been resumed; primarily due to a lack of non-Federal sponsorship.

In February 1986, record flood flows occurred in the Sacramento area. Subsequent studies have surfaced the seriousness of the flood threat. Due to the renewed interest in the project primarily for flood control, local water interests are trying to assemble a financing package for their share of the multiple-purpose project (.3 million ac-ft or smaller), and their efforts are continuing.

Also noteworthy, is a highly organized and vigorous environmental opposition to a multiple-purpose Auburn Dam Project.

QUESTION. It is my understanding that there is renewed support for a multi-pupose project. Is the Corps looking at that option or are you only focusing on a dry dam concept?

ANSWER. Corps studies are being pursued in accordance with Congressional directive to focus on alternative ways to increase the level of flood protection in the American River watershed assuming the Auburn Dam and Reservoir project as currently authorized is not constructed. Along main-stem American River, this includes physical and or operational modifications to the existing Folsom Dam and Reservoir, levee modifications downstream from Folsom Dam, and a dam at the Auburn Dam site for flood control. The State of California and other local interests support a high level of flood protection (200-years or greater) of flood protection. It appears that additional flood control storage on the American River is needed to achieve a high level of flood protection for Sacramento.

With respect to possible flood control storage at Auburn, the Corps is evaluating the following:

- Flood control only dam (Dry Dam):
- Flood control dam with minimum features to not preclude expansion to a multiple-purpose project by others in the future (Expandable Dam); and
- Flood Control only dam with a small permanent pool to allow water delivery to portions of Placer County (Minimum Pool Dam).

The State of California (the non-Federal Sponsor for the Corps studies) has recently conducted a series of public meetings, which concluded in the decision that the expandable dam best represents local preferences.

The Corps is also reviewing the potential for providing additional flood control storage at Folsom Dam on a seasonal basis in the interim until additional flood protection can be provided. Corps studies are scheduled for completion in early 1991.

SINGLE BENEFICIARIES

QUESTION. The Corps has been criticized about the policy of refusing to go forward with projects that benefit single-beneficiaries, especially where the beneficiaries are public or quasi-public entities such as school districts or irrigation districts. This was an issue in our last bill in the context of the Port Sutton Harbor project. Could you elaborate on this policy and tell us how it is working? Also, could you give us a status of the Port Sutton project?

ANSWER. This policy was issued in Engineering Regulation ER 1165-2-123, on August 31, 1989, entitled "Federal Participation in Proposed Projects in Single-Owner Situation." The policy was intended to clarify the breakpoint between actions that could best be accomplished by State and local interests, and those which were appropriate for Federal participation. The policy stems from Section 2 of the River and Harbor Act of 1920, which requires the Chief of Engineers to make a determination of the general versus the special interest in an improvement, and recommend an appropriate sharing of costs between Federal and non-Federal interests. The existence of only one user at a proposed navigation improvement has traditionally been considered evidence that special or local benefits are involved within the interest of this Act. Similar policy has also long been applied to flood control proposals, where protection of a few beneficiaries was considered to provide windfall benefits warranting special cost sharing. Projects requiring special cost sharing in accordance with these policies have been recommended to Congress and authorized on this basis.

In single-owner situations, there are two policy principles involved, one based on Government theory and one on economic theory. With respect to Government theory, Government intervention and support is needed when a desired outcome can best be achieved by collective action. As indicated by the body of Federal water resources legislation, Congress has established generally that the Federal Government should undertake only that which local levels of Government, or private enterprise, cannot do as readily, or as well from the standpoint of the national interest. In the referenced guidance, the breakpoint established to demonstrate the need for a collective action is liberal from the Federal participation standpoint, in that only two entities are required to demonstrate widespread and general benefits. The second principle based on economic theory, assumes that if the benefits of an improvement are real, in a single-owner situation, the owner can finance the desired improvement and recover costs through adjustments of rates charged to others for use of the facility or through savings from reduced operating costs; therefore, Government intervention is unwarranted.

Single-owner situations have been rare. Of several hundred Corps project proposals to reach the Washington-level in recent years, only a "handful" included single-owner consideration. One of the more recent cases is the Port Sutton Channel project in Florida. The Corps recently completed a reevaluation of that proposal after information had been provided on the possibility of multiple ownership. The Corps found that the second entity had no plans to deepen and improve its berthing areas to accommodate deeper draft ships. Consequently, the single-owner situation has not changed. However, the 1990 Energy and Water Development Appropriations Act directs completion of the engineering and design on the Port Sutton Channel using previously appropriated funds together with funds appropriated in Fiscal Year 1990. The Corps has issued a work allowance to comply with these directions.

Mr. NOWAK. We will stand adjourned until March 7, 1990. Thank you.

[Whereupon, at 12:52 p.m., the subcommittee was adjourned, to reconvene on Wednesday, March 7, 1990.]

DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
WASHINGTON, D.C. 20310-0103

17 APR 1990

Honorable Cass Ballenger
House of Representatives
Washington, D. C. 20515-3310

Dear Congressman Ballenger:

This is in response to your March 9, 1990, letter regarding Army Corps of Engineers studies at Polkville, North Carolina.

At the request of the town of Polkville and the Cleveland County Board of Commissioners, a reconnaissance study under Section 205 (Flood Control Act of 1948) Continuing Authorities Program for the town of Polkville was initiated by the Wilmington District in June 1989. Mayor Shytle of Polkville was informed of the initiation by letter dated June 29, 1989. On August 17, 1989, Mr. Al Bjorkquist, study manager, discussed the study initiation and funding with Mr. David Murray of your office.

As a result of Corps resources being diverted to support the recovery efforts after Hurricane Hugo, the initial field visit to Polkville was delayed until January 25 and 26, 1990. Based on this initial appraisal, the Wilmington District recommended full funding to complete the reconnaissance study, and on April 5, 1990, these funds ($50,000) were provided to the Wilmington District.

The Wilmington District Engineer will keep you informed of progress on the study.

Sincerely,

Robert W. Page
Assistant Secretary of the Army
(Civil Works)

FDRA
Footwear Distributors and Retailers of America
1319 F Street N.W. Washington, D.C. 20004
Peter T. Mangione, President
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STATEMENT BY
THE FOOTWEAR DISTRIBUTORS AND RETAILERS OF AMERICA
ON THE PROPOSAL TO INCREASE THE HARBOR MAINTENANCE FEE

These comments are submitted in opposition to the Administration's recent proposal to increase the ad valorem fee for harbor maintenance from its current level of .04 percent to .125 percent.

The Footwear Distributors and Retailers of America (FDRA) represents footwear chain stores that account for approximately half of all footwear sold annually at retail in the United States. FDRA also represents major footwear marketing and distribution firms that sell imported footwear primarily. All together, FDRA firms account for all but a small percentage of total shoes imported into the U.S.

The Water Resources Development Act of 1986 (WRDA) established the fee to offset 40 percent of the total maintenance dredging expenditures of the U.S. Army Corps of Engineers. The WRDA imposes the fee on commercial cargo loaded or unloaded from a commercial vessel at a U.S. port. Under the WRDA, the fee is to be paid by the importer of record or the exporter.

According to the Administration, the proposed increase would fully offset the cost of the Corps' harbor maintenance dredging and would offset the cost of certain National Oceanic and Atmospheric Administration (NOAA) marine programs including navigation satellites, coastal mapping and circulation and tide data.

FDRA opposes the Administration's plan because it would (1) force shippers to pay for programs unrelated to harbor maintenance; (2) generate revenues that exceed the cost of maintaining large, deep draft ports; and (3) force shippers to further subsidize shallow draft ports. In addition, current enforcement practices may cause importers to pay a disproportionate share of harbor maintenance. The proposed increase could compound this inequity. The following sets forth these points in greater detail:

1) The proposed increase would force shippers to pay for programs unrelated to "port use" and harbor maintenance. The fee is imposed on "port use" which is defined by the WRDA as "(A) the loading of commercial cargo on, or (B) the unloading of commercial cargo from a commercial vessel at a port." The Administration's proposal envisions that the fee's proceeds would offset NOAA commercial activities (such as navigation satellites and weather reporting) which do not involve "port use" or harbor maintenance. This would establish a dangerous precedent of supporting unrelated programs, violating the "user fee" principle. This also could cause U.S. trading partners to challenge the fee under the auspices of the GATT as an unfair levy on trade and would undermine U.S. negotiation efforts at the Uruguay Round. In addition, the fee may provoke U.S. trading partners to retaliate against American exports.

2) The proposed increase would generate excessive revenues. The American Association of Port Authorities (AAPA) estimates that the .125 percent fee would raise approximately $440 million for harbor maintenance. (This figure excludes the $45 million raised for NOAA programs.) This substantilly exceeds the cost of maintaining the large, deep-draft mainland ports (where the fee is almost exclusively collected) which is estimated by AAPA to be $220-270 million.

3) The proposed increase would force shippers to further subsidize shallow draft ports. AAPA estimates that 480 shallow draft ports are eligible for harbor maintenance fee funds even though these harbors collect neither the harbor maintenance fee nor the inland fuel tax. Because the Corps has budgeted $77 million to maintain shallow draft harbors next year, it appears that the proposed increase would force the users of deep-draft harbors to subsidize the maintenance of shallow draft harbors where the fee is not collected. Again, this raises GATT problems.

4) Current enforcement procedures may favor exporters. Although the WRDA requires both importers and exporters to pay the fee, FDRA believes that current enforcement procedures may cause importers to provide a disproportionate share of the fee's revenues. As described previously, the fee is calculated as a percentage of the cargo's value. As most imports are dutiable, U.S. Customs rigorously verifies the declared value of imported cargo. In contrast, exporters are not subject to similar procedures and scrutiny when they ship their goods from the U.S. Although the Customs Service may monitor shipments, some exports could "fall through the cracks." This would cause importers to pay a disproportionate share of harbor maintenance. The proposed increase could compound this inequity.

Besides the increased burden to imports, the proposed increase could encourage shippers to divert their cargo to Canadian ports. According to one study, the Administration's proposal would raise the cost of shipping an average container from $50.00 to $160.00. The increase could provide sufficient incentive for an exproter or importer to ship to a Canadian rather than a U.S. port. Increased cargo diversion would injure U.S. ports, and could undermine the revenue raising efforts intended by the fee.

MDA

METROPOLITAN DEVELOPMENT ASSOCIATION OF SYRACUSE & CENTRAL NEW YORK INC.

H. DOUGLAS BARCLAY • PRESIDENT
STEPHEN ROGERS • CHAIRMAN

IRWIN L. DAVIS • EXECUTIVE VICE PRESIDENT

March 20, 1990

The Hon. Henry J. Nowak
Member of Congress
B - 370A
Rayburn Building
Washington, D.C. 20515

Dear Congressman Nowak:

Thank you for your invitation to comment on legislation and federal efforts to clean-up and restore Onondaga Lake. As Chairman of the Metropolitan Development Association of Syracuse and Central New York, I am pleased to respond.

The Metropolitan Development Association is a private, not-for-profit professional planning, research and development organization which represents the business leadership of the Central New York region. Our organization, working with the Syracuse Partnership, as described in testimony to be presented by MDA Director, Mr. Christopher L. Spire, has taken a lead role in addressing the environmental, recreational and economic issues concerning lake clean-up and lakeshore utilization.

We have taken this action and have become involved because we believe that remediation of pollution and proper land use planning will transform Onondaga lake and adjacent lands into a tremendous community asset and regional attraction. The economic development potential in terms of jobs and construction activity is exciting to envision.

Perhaps even more exciting however, is the opportunity we have to literally take what is now acknowledged as one of the most polluted bodies of water in the United States, and over time, rid the lake of its toxins, prevent further pollution and demonstrate to the country and the world that with time, resources and effort it is possible to overcome major environmental problems.

This ambitious type of project cannot be accomplished by our community alone. Working together, the private sector, concerned organizations, and local and state governments have begun to take action. A partnership with the federal government is the next step that is needed, particularly if we are to address the major pollution inputs impacting the lake, such as combined sewer overflows and mercury contamination.

1900 STATE TOWER BUILDING SYRACUSE, NY 13202-1784 TEL. (315) 422-8284
FAX (315) 471-4503 — TELEX # 4949080

We are encouraged by the appointment of the Onondaga Lake Management Conference and acknowledge support for the Conference and the U.S. Army Corps of Engineers in the 1990 Budget. However, more has to be done. Therefore, the Metropolitan Development Association strongly supports and endorses legislation proposed by Congressman Walsh and Senator Moynihan referred to as the "Onondaga Lake Restoration Act of 1990".

While supporting the federal legislation and accompanying funding, the MDA recognizes that we cannot expect the U.S. Congress to be solely responsible for the clean-up of the lake. Therefore, we are prepared to work with our federal representatives and the Onondaga Lake Management Conference to help secure whatever state and local participation is required to match the support called for in the legislation.

As I have indicated elsewhere in this letter, we have a unique opportunity to address and solve this major community problem. The MDA looks forward to working with you and your colleagues in the months and years ahead.

Again, thank you for the opportunity to comment on behalf of the Metropolitan Development Association.

Sincerely,

Stephen Rogers

Stephen Rogers
Chairman

PROPOSED AUTHORIZATIONS FOR THE WATER RESOURCES DEVELOPMENT PROGRAM OF THE U.S. ARMY CORPS OF ENGINEERS

WEDNESDAY, MARCH 7, 1990

House of Representatives,
Subcommittee on Water Resources,
Committee on Public Works and Transportation,
Washington, DC.

The subcommittee met, pursuant to notice, at 10:09 a.m., in room 2167, Rayburn House Office Building, Hon. Henry J. Nowak (chairman of the subcommittee) presiding.

Mr. Nowak. The subcommittee will come to order.

This morning, the Subcommittee on Water Resources meets to receive testimony concerning proposed project authorizations and other provisions for the civil works program of the U.S. Corps of Engineers.

This hearing is the second of a series of hearings relating to the biennial reauthorization cycle for the Water Resource Development Program. We will also conduct a hearing on March 14, 1990, to receive additional testimony.

With us today are many Members of Congress and their constituents. The subcommittee thanks each of the witnesses for appearing. The testimony of each witness will be reviewed by the subcommittee as we develop our legislation for 1990. Before I begin the hearing and receive the testimony, let me yield to our distinguished colleague from Wisconsin, Mr. Petri, the ranking Republican Member at this time of the subcommittee for whatever remarks he wishes to make.

Mr. Petri. Mr. Chairman, I just want to commend you for holding this series of hearings. I know it's hard work and it takes a lot of time but I think it's very important as we move forward as the authorizing committee on all these projects that they have the opportunity to be considered by the subcommittee and the full committee, each one on its merits. That way we don't force things into last-minute decisions and en bloc authorizations that don't have the kind of consideration that they really should in our whole process.

I commend you for this important step toward regaining the jurisdiction of this committee in a very important area of national policy.

Mr. Nowak. Thank you very much and because of the time limitations and the number of Members that we have who have requested to appear, it doesn't look like we'll be able to finish in one or two days even, but let us begin the process by introducing Congressman Charles E. Bennett who represents Florida and has had a longstanding interest, I'm sure, in the project that he's going to be discussing today.

CROSS FLORIDA BARGE CANAL

TESTIMONY OF HON. CHARLES E. BENNETT, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA

Mr. BENNETT. Thank you very much, Mr. Chairman and I'd ask unanimous consent to have my entire statement put in the record now. I'll just read portions of it.

Mr. NOWAK. Without objection, so ordered.

Mr. BENNETT. After a long period of history in developing the Cross Florida Canal, in modern times, President Dwight Eisenhower approved a new appropriation to study the issue and President John Kennedy approved beginning construction. Construction began with President Lyndon Johnson flying to Florida to detonate a charge to begin construction of the Cross Florida Barge Canal which was enthusiastically requested by the State of Florida and local governments in the course of it.

I am advised that the Congress appropriated $73 million for construction and other costs. Local governments in Florida put up $32 million to purchase land for the Canal project with the State kicking in some $9 million overall, as I understand that figure. The State and the local government later withdrew their support for the Canal, thus rendering the constructed portions useless and the $73 million, a waste visited upon the taxpayers throughout the land.

Now, there's a wide consensus to fully deauthorize the Canal. I say "fully" deauthorize the Canal because the Congress in 1986 attempted to deauthorize the Canal but the State has never taken the needed action to facilitate deauthorization, criticizing some aspects of the 1986 Federal law provisions. Everyone agrees that the counties should be repaid $32 million they put in for land acquisition. There is now, I believe, a consensus that the State should retain control of the lands for park or conservation purposes.

For the $73 million Federal expenditures, the only thing I seek is a practical and enforceable guarantee that the State be required to manage the canal lands as a park or conservation area. There should be no chance of the State selling off lands to aid the State treasury, lands that would not be available for such exploitation had it not been for the Federal expenditures to make the project a reality, expenditures at the request of the State.

My bill, H.R. 3905, which I submit for the record, would provide for full deauthorization immediately upon the State turning over the lands to the Federal Government. The State could then ask for the lands back to create a park or conservation area but the lands would revert to the Federal Government if a park or conservation area were ever abandoned by the State or if the State ever attempted to sell off any of the land. This is the best technique for guaranteeing the use of the lands for park and conservation purposes in perpetuity. However I would not quarrel with some other equally enforceable measure.

Of course, the Federal law could be changed at some later date. So perpetuity is never guaranteed, but I think it's incumbent upon the Congress to do all in its power to protect the huge Federal investment in the canal project by ensuring that the legislation it passes guarantees that now this conservation project will go forward.

If other Congressmen want to revisit the reverter provision in future years, that of course could be up to them because you can't make anything permanent outside of a constitution.

I appreciate the time that the committee has given me today. I understand this hearing is preliminary to a water resource bill introduced in the House. Any consideration you can give to my request here today would be deeply appreciated. I'll be glad to answer any questions if anybody has any questions.

Mr. **Nowak**. Thank you very much, Mr. Bennett. We appreciate your input into this.

You really have spent a career on this project and everybody realizes that, and have come up with a very unique solution now that the project is deauthorized and we'll have to start to take and look at where the equities lie in trying to bring forward an acceptable solution, not only to the State but to the Federal Government and certainly the counties that have contributed over the years in hard dollars for land acquisition all along this project. We will be looking to develop this legislation and certainly will be back to you with perhaps some other suggestions but your bill is certainly a great start for us to move forward with.

Let me turn now to Bill Grant who also represents Florida for any comments or questions he has.

Mr. **Grant**. Thank you, Mr. Chairman, and to my distinguished colleague, the dean of the Florida Congressional delegation, Charlie Bennett. Congressman Bennett's dedication and commitment to environmental preservation is well-documented, Mr. Chairman. Generations to come, I'm confident, will benefit from not only his energy but his insistence that our pristine and even historical lands be protected.

Congressman, we're grateful to you for that.

Mr. **Bennett**. Thank you.

Mr. **Grant**. I've read your written testimony as well as heard what you said here today, Congressman, and indeed, our history of this canal goes back a long, long way, back to the Spanish explorer Pedro Menende .

The first money was committed by President Roosevelt during the Great Depression for this canal but to me, the most significant date in the history of this project was 1971. That's when President Nixon acknowledged the risk to Florida's fragile environment, specifically its drinking water, and proposed to us that we stop—in fact, signed an Executive order suspending construction of the canal.

In 1977, the Army Corps of Engineers recommended the canal project be terminated and for the last 13 years, there's been no little disagreement over how to write the epitaph for this Cross Florida Barge Canal. I believe environmental awareness is one of our generation's greatest achievements and nowhere is this practiced more vigorously than my home State of Florida where hundreds of thousands of acres of delicate marsh and seashore have been protected through purchase, donation and easement.

Florida's currently planning to undertake the largest environmental restoration project ever attempted, the restoration of the Kissimmee River. Also, the legislature will soon be considering a $3 billion bond program to bring even more endangered land under State control that otherwise would be lost to development.

Mr. Chairman, the State of Florida is committed to preserving the canal corridor for multi-recreational use and wants to begin the process immediately. For the past several months, Congressman Cliff Stearns, Senator Bob Graham and I have been drafting language that would accomplish this goal and we'll soon be introducing a bill which I'm sure will be referred to our subcommittee. It will differ some from Congressman Bennett's suggestions but we've managed to bridge many chasms in the years since the construction of the barge canal was halted and I'm confident that in the coming weeks and months, we can overcome the small differences which exist in our approaches to the same goal.

Thank you, Mr. Chairman.

Mr. NOWAK. Thank you very much, Mr. Grant.

Congressman Ballenger from North Carolina?

Mr. BALLENGER. No questions.

Mr. NOWAK. Mr. Petri?

Mr. PETRI. No questions.

Mr. NOWAK. No questions again.

Thank you very much, Mr. Bennett, for your input into a very difficult solution and we'll be working with you and, of course, Mr. Grant who also will be having input into this whole process.

[Mr. Bennett's prepared statement and H.R. 3905 follows:]

CONGRESSMAN CHARLES E. BENNETT
of Florida
Statement before
the HOUSE PUBLIC WORKS
SUBCOMMITTEE ON WATER RESOURCES

March 7, 1990

Mr. CHAIRMAN:

I appreciate the chance to appear before you today on behalf of my bill, H. R. 3905, dealing with the Cross Florida Barge Canal.

As you know, the Cross Florida Barge Canal has a long history. In fact, the Spanish explorer Pedro Menendez sought out such a canal in the 1500s for travel between the Atlantic Ocean and the Gulf of Mexico in Florida. Unfortunately for him, no such canal existed. Our nation first debated the idea of building the canal in the early 1800s.

President Franklin Roosevelt, in modern times, committed $5 million to build a Cross Florida Ship Canal as part of his public works job program to bring the United States out of depression. When that ran out, so did the commitment to build on. There remains to this day the bridge stanchions that Roosevelt built over what would have been the ship channel.

In modern times, President Dwight D. Eisenhower approved a new appropriation to study the issue, and President John F. Kennedy approved beginning construction. Construction began when President Lyndon Johnson flew to Florida and detonated a charge to begin construction of the Cross Florida Barge Canal, which was enthusiastically requested by the State of Florida and local governments in its course. Congress appropriated some $73 million dollars for construction. Local governments in Florida put up $32 million to purchase lands for the canal project, with the state kicking in some $9 million, overall. The state and the local governments later withdrew their support for the canal, thus rendering the constructed portions useless and the $73 million a waste visited upon taxpayers throughout the land.

Now, there is a wide consensus to fully deauthorize the canal project. I say fully, because Congress, in 1986, attempted to deauthorize the canal, but the state has never taken the needed action to facilitate deauthorization, criticizing some aspects of the 1986 law's provisions.

Everyone agrees that the counties should be repaid the $32 million they put in for land acquisition. There is now, I believe, a consensus that the state should maintain control of the lands for park or conservation purposes.

For the $73 million federal expenditure, the only thing I seek is a practical and enforceable guarantee that the state be required to manage the canal lands as a park or conservation area. There should be no chance of the state selling off lands to aid the state treasury, lands that would not now be available for such exploitation had it not been for the federal expenditures to make the project a reality, expenditures at the request of the state.

While I believe the current state leaders essentially want a park or conservation area stretching across the state, I want to bind, as much as possible, future generations of Florida leaders to that goal. The best way to do this is to require a reverter clause, so if the state ever seeks to use the lands for other than park or conservation purposes, the title to the lands will revert the the federal government. I have introduced legislation to do that. There is a problem in doing this since the state technically has title to many of the lands, although such title is clouded by the 1986 Federal Act and by a federal injunction that the canal corridor can in no way be sold off or structurally changed until Congress acts to deauthorize.

My bill, H. R. 3905, which I submit for the Record, would provide for full deauthorization immediately upon the state turning over the lands to the federal government. The state could then ask for the lands back to create a park or conservation area, but the lands would revert to the federal government if a park or conservation area was ever abandoned by the state, or if the state every attempted to sell off any of the lands.

This is the best technique for guaranteeing the use of these lands for park and conservation purposes into perpetuity. Of course, the federal law could be changed at some later date, so perpetuity is never guaranteed, but I think it is incumbent on this Congress to do all in its power to protect the huge federal investment in the canal project by insuring that the legislation it passes guarantees that, for now, at least. If other Congresses want to revisit the reverter provision in future years, they could, of course, do that.

The state would prefer some other type of binding mechanism, other than a reverter. I'm skeptical that can be accomplished but am at least exploring the possibilities. Unless there is some other type of binding mechanism found, I would encourage this able subcommittee to include H. R. 3905 in its version of the Water Resources Act. I would not normally ask for such action, but it is my understanding that the Senate's bill will likely contain a provision on the canal that will not adequately bind the state to having a park or conservation area throughout the canal lands. So, it would be very helpful to my point of view if the House had my provision in it. I would also request to be a part of any conference committee activity on the Cross Florida Barge Canal provision.

I appreciate the time you have provided me here today. I understand this hearing is preliminary to a Water Resources bill being introduced in the House. Any consideration you can give to my request here today would be deeply appreciated.

I

101st CONGRESS
2d Session

H. R. 3905

To deauthorize the Cross Florida Barge Canal and to assist the State of Florida in establishing a Cross Florida State Park or conservation area, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

January 29, 1990

Mr. Bennett introduced the following bill; which was referred to the Committee on Public Works and Transportation

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A BILL

To deauthorize the Cross Florida Barge Canal and to assist the State of Florida in establishing a Cross Florida State Park or conservation area, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

Section 1114 of the Water Resources Development Act of 1986 is amended to read as follows:

"SEC. 1114. CROSS FLORIDA BARGE CANAL.

"(a) The Cross Florida Barge Canal is deauthorized immediately upon the transfer, by quitclaim or otherwise, to the United States of all lands and interests therein held by the State of Florida and its Canal Authority for the Cross Florida

Barge Canal project, except for parcels of land that are not contiguous, adjoining or otherwise physically connected to the canal corridor (hereinafter referred to as 'noncontiguous parcels').

"(b) The State of Florida shall reimburse the counties of Duval, Clay, Putnam, Marion, Levy, and Citrus at least $32,000,000, in the aggregate, for their investment in the canal project. The State of Florida may use proceeds from any sale of the noncontiguous parcels referred to in subsection (a) as a source of funding for this reimbursement.

"(c) If the State of Florida requests the return of the lands transferred to the United States as prescribed in subsection (a) for the purpose of establishing a State park or State conservation area, the United States shall immediately transfer to the State of Florida said lands, along with any other lands, including physical structures, held by the United States for the canal project: *Provided, however*, That if the State of Florida ever attempts to sell any of such lands or any interest therein, or to use any parcel or portion of such lands for other than park or conservation purposes, the title to all the lands transferred under this subsection to the State of Florida, shall revert to the United States.

"(d) Congress urges the State of Florida to use any surplus funds derived from the sale of noncontiguous parcels referred to in subsection (a) to fund the acquisition of ecologically important lands to improve the integrity of the park or conservation area referred to in subsection (c).".

Mr. **Nowak**. Let us now turn to Congressperson Marcy Kaptur of Ohio for her testimony.

MAUMEE BAY STATE PARK, OH

TESTIMONY OF HON. MARCY KAPTUR, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OHIO, ACCOMPANIED BY BOB LUCAS, U.S. ARMY CORPS OF ENGINEERS LIAISON OFFICER, STATE OF OHIO, STEVE CARTER, CHIEF ENGINEER, OHIO DEPARTMENT OF NATURAL RESOURCES, AND DAVE MALLEY, ON BEHALF OF STATE REPRESENTATIVE BARNEY QUILTER OF OHIO

Ms. **Kaptur**. Mr. Chairman, I want to thank you and the other Members who are here this morning, Mr. Petri, Mr. Grant, Mr. Ballenger and all the Members of the committee, not only for the assistance I know you will give us this year, but what you have given us in prior years that has helped us so much on two projects I would like to discuss this morning.

The first one, which is probably familiar to you, is Maumee Bay State Park and this is a shoreline protection project and is located in the western basin of Lake Erie. I would like to ask the committee's permission to submit for the record, testimony in support of my statement from Mr. Joseph Sommer who is the director of the Ohio Department of Natural Resources and Governor Richard Celeste's liaison to the Army Corps of Engineers.

Mr. Sommer has sent to this hearing today Mr. Bob Lucas who is the Army Corps of Engineers officer from our State as well as Mr. Steve Carter who is the chief engineer at the Ohio Department of Natural Resources. In addition, I would like to ask permission to include testimony from our State Representative Barney Quilter who also serves as speaker pro tem of the Ohio House and representing him here today is Mr. Dave Malley from his office in Columbus. This is one of the top priorities of our State government.

Mr. **Nowak**. Without objection, does that conclude the statements?

Ms. **Kaptur**. No, it does not.

Mr. **Nowak**. No, in terms of the insertions.

Ms. **Kaptur**. In terms of the insertions, yes.

Mr. **Nowak**. Without objection, so ordered.

Ms. **Kaptur**. Thank you, Mr. Chairman.

I just might say for the record that Mr. Quilter has been instrumental in developing this area for the past 19 years. The shoreline protection project has been the sticking point for many years. Just as a reminder, Maumee Bay State Park, located directly on Lake Erie, is our largest State Park and it will be a multi-use, economic development and recreational area that is located in Lucas County, Ohio on the south shore of Lake Erie near Toledo. It is already an economic boost for the State of Ohio and our region and the State has invested millions of dollars to date on the development of this park and shoreline facility.

The erosion control project is designed to protect Maumee Bay State Park and was authorized in the Water Resources Development Act of 1986, Public Law 99-662. Currently, our Ohio Department of Natural Resources and the Army Corps of Engineers are working together to finish construction on the project. The project was divided into two parts. The eastern segment of the project was completed by the State in 1987 at a cost of $3.5 million but despite a 50/50 cost-sharing arrangement authorized in that public law, the Federal Government has never met its obligation nor provided any financial assistance for construction on the eastern segment due to what have become procedural delays.

Now, the State has been trying for several years to get this erosion project completed and therefore, it constructed the eastern segment which was critical to providing for one of the major building complexes there which was a lodge complex facility. The western portion of the project is still not completed and at last count I think was eroding at the rate of about 12 or 15 feet a year.

Mr. Chairman, the subcommittee was helpful in including language crediting the State of Ohio for its share expended on the project in that act of 1988 but unfortunately, all credit provisions were stricken from the bill in conference. It is my hope that language similar to that in the 1988 bill can be included in your upcoming Water Resources Development Act of 1990.

The remaining cost of the project will be about $5 million but the project remains in jeopardy unless Ohio receives proper credit for the work it has completed on behalf of the Federal Government. The language I am submitting today asks for the State's share of the cost on the work remaining to be done, to be set aside in an amount that would be $1.75 million, in the amount of a credit for the State which is half of the money that the State has already spent.

I would like to submit for the record a more complete documentation of the costs associated with this project. I really cannot stress enough and I ask for your support on this because our State has proceeded along and it's somewhat embarrassing as a Federal official not to be able to deliver on the Army Corps of Engineers' promise and the State's share as your own State and your State officials are plunging ahead. So I would really ask for your help there.

OTTAWA RIVER HARBOR, MICHIGAN AND OHIO

The second project—and I will be very brief here—concerns the deauthorization of a project that has been known in the legislation as the Ottawa River Harbor at Michigan and Ohio. This project was authorized as an eligible project for 50 percent Federal funding participation in December, 1970 under the provisions of the 1965 Flood and Control Act and it allowed for dredging a 6-foot channel from Suder Avenue in Toledo, Ohio, to the tip of the lost peninsula in Michigan and an 8-foot channel from there to the Toledo Ship Channel, a distance of nearly six miles.

The deauthorization process was set in motion through the Water Resources Development Act of 1986 because this act called for deauthorization of projects that had not had funds obligated to them for a period of ten years. In 1977, the Army Corps of Engineers put the Ottawa River dredging project on hold based on notification from the Ohio Department of Natural Resources and the Michigan Department of Natural Resources that the local share of funds for the project, which was about $2.5 million or one half the total cost, could not be appropriated. By 1987, the estimated costs had risen to over $10 million, requiring a $5 million local share.

Because the City of Toledo, the largest community I represent, is the community that has the most population that would benefit from the dredging of the Ottawa River, it became the local sponsor for the project. The city was required to make a financial commitment as of December of last year. Our City of Toledo contacted the State of Ohio Department of Natural Resources and Michigan to solicit matching funds and they are currently asking many of the boating clubs in the area to try to also help in matching funds.

The City of Toledo's Division of Streets, Harbors and Bridges has indicated that its 5-year budget plan calls for money to be allocated for the project in 1993 and 1994. So our dates just didn't mesh and I have received literally thousands of letters from people in the northeastern part of my district who are having difficulty because the channel has not been dredged and according to the old studies that were done over 10 years ago, there were over 3,000 boats that were docked in the Ottawa River at that time.

Dredging would increase the boat space by over 25 percent and would also help us open up our river to charter boat fishing and other economic uses and small business uses associated with this major waterway that flows into Lake Erie. We have two major tributaries that come through the City of Toledo. Ottawa River is one. Swan Creek is the other. They dump into the Maumee River and then that river dumps into Lake Erie. We are the walleyecapital of the world and we are inundated with boats, with tourists. We've got more boat licenses in our part of the country than anywhere in America, except, I guess, for Michigan.

So this dredging project is very important to us and unfortunately, our local community, because of the recession and the condition of the automotive industry and all, has just had cutbacks in the city government and they couldn't appropriate the money in their capital works projects to meet the deadlines that were required under the act.

So I would ask for favorable consideration in this area as well and Chairman John Dingell, my colleague, who borders my district on the north, also asked if I would submit testimony on his behalf today in support of this Ottawa River dredging project. He has the other part that goes up into the State of Michigan and he asked if I could ask the committee's unanimous consent to include his support and request for this project as well along with a request that is specifically for his district. He is chairing a committee this morning and could not be here.

I thank all the gentlemen for their attention. I know you have many witnesses to hear and we thank you for your consideration.

Mr. NOWAK. Without objection, we will certainly accept Congressman Dingell's statement and look forward to again working with you. I realize how important that project area is not only to Toledo, but to the whole state, and as we look at the corps' works and we see some changes, we are urging a broader look at some of these types of projects and we will certainly bring that broader perspective to your project as well.

Thank you for your continued articulation on behalf of your constituents. You have been very effective and have given us much credible evidence to bring forward as we move this total massive resource bill forward.

Ms. **Kaptur**. Thank you, Mr. Chairman.

Could I just ask on the credit provision section, the difficulty that the committee ran into in conference last time, do you anticipate the same set of arguments that would be offered against credit provisions in this upcoming bill? I wasn't a party to those discussions at that time. I guess I'm just curious. I'm asked all the time back home and I'm really not familiar with the procedures you have to go through as you move your bill forward.

Mr. **Nowak**. There's been no broad legislative changes since that time to change that perspective. We're trying to move in that direction and if we do, of course, your kind of situation could be reconsidered and will be looked at in any event.

We're also trying to pull many of these projects together that have combination effects, so to speak, and look at the broader impact, if you will, on navigation projects or flood control projects and see where we can expand to create the kind of economic activity that we want to achieve both in transportation and in pure job-creating kinds of opportunities.

Ms. **Kaptur**. Mr. Chairman, we're anxious to work with you on that.

Mr. **Nowak**. Not as anxious as I am.

Ms. **Kaptur**. Thank you.

Mr. **Nowak**. Let me do this. Let me—because of the volume of Members that we have I'm trying to move through, all the Members here, of course, will receive the testimony and others who are at other committee meetings and I just ask, if anybody would have any particular question on any of the witnesses, just raise your hand at this time and certainly I would be more than welcome.

Mr. Petri.

Mr. **Petri**. I just wanted to wish you good luck over at appropriations, too, especially on Maumee. You need it.

Ms. **Kaptur**. Thank you. We've had pretty good luck. We've had pretty good luck there. Thank you very much.

Mr. **Nowak**. Mr. Clement.

Mr. **Clement**. No questions.

Mr. **Nowak**. No questions. Thank you very much and I want to thank the committee for allowing us to move forward as we want to receive as much of the Congressional testimony as we can and now we certainly want to recognize Congressman Mazzoli from Kentucky.

[Ms. Kaptur's prepared statement follows:]

OTTAWA RIVER DREDGING AND MAUMEE BAY STATE PARK WATER PROJECTS
WATER RESOURCES SUBCOMMITTEE

Testimony
The Honorable Marcy Kaptur
March 7, 1990

Thank you, Mr. Chairman and (Committee Members present) for the opportunity to testify before you today. The first project I would like to discuss, Mr. Chairman, is the deauthorization of the project known as "Ottawa River Harbor at Michigan and Ohio."

The Ottawa River project, authorized as an eligible project for 50% federal funding participation in December, 1970 under provisions of the 1965 Flood and Control Act, allowed for dredging a six-foot channel from Suder Avenue to the tip of the Lost Peninsula in Michigan, and an eight foot channel from there to the Toledo ship channel, a total distance of nearly six miles.

The deauthorization process was set in motion through the Water Resources Development Act of 1986. This Act called for deauthorization of projects that have not had funds obligated to them for a period of ten years.

In 1977 the Army Corps of Engineers put the Ottawa River dredging project on hold based on notification from the Ohio Department of Natural Resources and the Michigan Department of Natural Resources that the local share of funds for the project, approximately $2.5 million (one-half the total cost of the project), could not be appropriated. By 1987, the estimated cost for the same project was projected at $10 million requiring a local share of $5 million.

Because the City of Toledo is the community with the largest population that would benefit from the dredging of the Ottawa River, it became the local sponsor for the project. The City and other local interests were required to make a financial commitment to the project by December 31, 1989. The City of Toledo has contacted the Ohio Department of Natural Resources and the Michigan Department of Natural Resources to solicit local matching funds. Lucas County in Ohio and members of boating clubs are other possible sources of local matching funds. The City's division of Streets, Bridges and Harbor of Toledo has indicated that its five-year budget calls for money to be allocated for the project in 1993 and 1994. This request was based on the Corps of Engineers' estimate that a study on the project would take 2 to 4 years to complete.

I have received thousands of letters and postcards as well as phone calls from my constituents urging that this project not die. The impact of the dredging project include increased economic activity in the project area. A deeper channel is needed for the boats that use this waterway every year. The 1976 study done by the Army Corps of Engineers indicated that there were 3,285 boats docked in the Ottawa River at that time.
If the dredging is done, boat space would increase by twenty-five percent. Dredging the Ottawa River would also open up the area for more charter fishing as boats could leave from the River. Charter fishing is a major source of small business expansion in Ohio. Further, Lake Erie is considered the walleye capital of the world. Fishermen come from all over the country and the world

to fish for the walleye. Increased dock space as the result of dredging could open up this industry even more. Expanded use of the River, will create an increase in business for existing establishments such as restaurants and marinas on the banks of the River. The amount of jobs and income for other industries resulting from the fishing industry is substantial.

Once the polluted bottom material is removed, water quality should improve due to a decrease in toxic substances, metals and organic material. In addition, the need is great for preventing the dredged material from infiltrating Lake Erie. Rivers that flow into Lake Erie cannot be neglected at a time when this great lake is experiencing a rebirth from previous damage caused by pollution. I hope that you will support reauthorization of this important project.

The other project I would like to discuss, Mr. Chairman, is Maumee Bay State Park. I want to thank the Committee for helping us, in the past, on the Maumee Bay shoreline protection project. I remain most grateful for the help and consideration that we have been given on behalf of the western basin of Lake Erie and our part of the country. I would like to ask the Committee's permission to submit for the record testimony in support of my statement from Joseph Sommer, Director of the Ohio Department of Natural Resources and Governor Richard Celeste's liaison with the Army Corps of Engineers. I would also like to include testimony from Barney Quilter, State Representative from the 47th District in Ohio and Speaker Pro Tem of the Ohio House. Mr. Quilter has been instrumental in the development of Maumee Bay State Park --

having been involved with the project for 19 years.

As you recall, Maumee Bay State Park will be a multi-use, economic development and recreational area located in Lucas County, Ohio on the south shore of Lake Erie, near Toledo. Because of its multi-use nature, it will be an important employment generator and overall economic boost for the State of Ohio. The state, realizing the potential value and benefit of this project, has invested millions of dollars in the development of this park-shoreline facility, the largest in northern Ohio.

The erosion control project designed to protect Maumee Bay State Park was authorized in the Water Resources Development Act of 1986, Public Law 99-662. Currently, the Ohio Department of Natural Resources and the Army Corps of Engineers are working together to finish construction on this project. The eastern segment of the project was completed in 1987 at a cost to the State of $3.5 million. Despite a 50/50 cost-sharing arrangement, authorized in Public Law 99-662, the federal government did not provide any financial assistance for construction of the eastern segment due to procedural delays. Because the State had been trying for several years to get a shore erosion project constructed at Maumee Bay State Park, it went ahead and completed the eastern segment of the erosion project -- which was critical to protecting the lodge complex facility. The western segment remains to be completed.

Mr. Chairman, the Subcommittee was helpful in including language crediting the State of Ohio for its share expended on the project in the Water Resources Development Act of 1988. Unfortunately, all "credit provisions" were stricken from the bill in conference. It is my hope that language similar to that in the 1988 bill, can be included in the upcoming Water Resources Development Act of 1990.

The remaining cost of the project will be approximately $5.0 million. However, completion of this project remains in jeopardy unless Ohio receives proper credit for the work it has completed on behalf of the federal government. Without the credit, the State does not have a source of funds to complete its share of the remaining project. The language I am submitting today, for the record, asks to credit the State share of the cost of the work remaining to be done, an amount equal to the federal share of the work carried out by the State on the eastern segment of the project. In effect, this would be a $1.75 million credit for the State -- half of the $3.5 million spent by the State. I would like to submit for the record, the figures used to determine the credit. Since the total cost of this project was to be shared on a 50/50 basis by Federal and State agencies, it would be unfair to expect Ohio taxpayers to bear more than their fair share of this extremely important project.

I cannot stress enough the importance of Maumee Bay State Park in securing an even more promising economic outlook for the State of Ohio and especially the Lake Erie region. This additional language would bring us one step closer to its completion becoming a long-awaited reality.

Thank you again, Mr. Chairman, for this opportunity to appear.

[Mr. Sommer's prepared statement follows:]

ODNR
OHIO DEPARTMENT OF
NATURAL RESOURCES

Fountain Square
Columbus, Ohio 43224

March 2, 1990

The Honorable Henry J. Nowak, Chairman
House Subcommittee on Water Resources
B370A Rayburn House Office Building
Washington, D.C. 20515

Re: Credit Language for the Maumee Bay Shore Protection Project

Dear Mr. Chairman:

Attached to this cover letter is a copy of the testimony that I am submitting for your consideration and the consideration of your subcommittee on Water Resources. The original testimony is being submitted through the courtesy of the Honorable Marcy Kaptur, Member of Congress from Ohio's 9th congressional district. My testimony pertains to the State of Ohio's critical need to receive credit for a portion of this project that has already been constructed by the State of Ohio.

As you will see in my testimony, it is imperative that the State of Ohio receives this credit to insure that the remaining portions of this project can be completed as mandated by Congress. Without this credit, the Ohio Department of Natural Resources will be hard pressed to fund the significantly higher local share that will result for the remaining work if the credit is not received.

I thank you in advance for your support of this critical language.

Sincerely,

Joseph J. Sommer

JOSEPH J. SOMMER
Director

JJS:bm
Encls.
cc: Honorable Marcy Kaptur

Richard F. Celeste, Governor

TESTIMONY OF JOSEPH J. SOMMER
DIRECTOR, DEPARTMENT OF NATURAL RESOURCES
STATE OF OHIO

3/7/90

Mr. Chairman and Members of the Subcommittee, my name is Joseph J. Sommer. I serve as the Director of the Ohio Department of Natural Resources (ODNR) and as Governor Richard F. Celeste's liaison with the U.S. Army Corps of Engineers. The following testimony represents the views of the State of Ohio regarding Ohio's urgent need for language in the upcoming Water Resources Development Bill which is necessary to insure that the intents of earlier Congressional legislation is carried out.

In conjunction with Army Corps of Engineers, the State of Ohio has been struggling for more than ten years to get a federally-funded shore erosion project constructed at ODNR's Maumee Bay State Park which is located on the shores of Lake Erie. This much needed project has two major purposes. First and foremost, this project will arrest a continuing extreme loss of public land caused by erosive forces of Lake Erie. In fact, more public land is being lost yearly at this site than any other site known to exist on Lake Erie. Each year an average of 15 feet of shoreline is lost to erosion. Secondly, this project is necessary to protect Ohio's investment of $40,000,000 in public funds that are being expended to construct the most comprehensive state park development known to exist anywhere in the United States. A considerable number of buildings, roadways, parking lots and public areas are being constructed near this eroding shoreline which will most certainly become structurally jeopardized if this erosion is not soon halted.

In the late seventies, the State of Ohio first established a timetable for the construction of this large park project. An attempt was made to time the State's funding schedule for construction of the park with estimates of when the Corps' shoreline protection work would get underway. It was important that the two timetables coincide so the state would not have to build new park facilities near a quickly eroding shoreline, without first having the erosion protection project in place.

However, in 1985, due to delays encountered by the Corps in obtaining funding for its preconstruction and design work, which was prompted by the Federal Administration's refusal to budget such work, it became necessary for the State of Ohio to proceed with construction of the eastern segment of the federal project. At that point in time, the Corps reviewed the state's proposed design of the eastern segment and found it to be consistent with all of the federal project goals and requirements. After which, the State of Ohio initiated and completed the eastern segment construction work.

Then, even though this eastern segment of the project had always unquestionably been a part of the federally authorized project, the eastern segment according to the Federal Administration, ceased to be a part of "The Project". The State of Ohio was told that we would get no credit for constructing this eastern segment of the federal project. I maintain that this position of the federal administration is not consistent with the Intent of Congress. The 1986 congressional authorizing legislation (Public Law 99-662) mandates that "The Project" be cost-shared between ODNR and the Army Corps of Engineers. Since this eastern segment has always been a part of this project, the State of Ohio should obviously receive credit for it's work on the eastern segment.

All we ask is that this credit be applied towards the state's future local share of the remaining work yet to be performed.

The State of Ohio's initiative to construct the eastern segment of this project saved federal dollars. It's ironic that the Administration wants to penalize the State of Ohio for saving federal dollars by not allowing any credit for our previous work on the project.

The Administration's position is that this is a recreational project. The purpose of this project is for shoreline protection; not recreation. Public recreation benefits are acknowledged, but the real purpose of this project is to protect millions of dollars worth of a public investment being totally funded by the taxpayers of the State of Ohio. Therefore, the Administration should not be viewing this project as a recreational project, but rather should be recognizing it as the shore protection project that it truly is.

The State of Ohio's concern about this credit is critical to the success of the project Congress has authorized. If the State of Ohio does not receive this credit, the project's remaining authorized shore protection work could be seriously jeopardized due to the difficulty ODNR will have in obtaining a much larger local share if the credit is not received. Without the credit, ODNR's local share for the remaining work will skyrocket to $2,500,000; a figure unavailable in ODNR's existing budgets and non-existent in the budgetary amounts proposed for ODNR in the state's next 2-year capital budget cycle. Therefore, to insure the completion of the remaining work, it is imperative that language be inserted into this Water Resources Development Bill that will provide the State of Ohio with this desperately needed and obviously deserved credit.

I must emphasize that publicly-funded buildings and site improvements being constructed along this shoreline will be seriously jeopardized if the "Federal Project" is not completed. If the State of Ohio does not receive this due credit, there exists a real possibility that the remaining work authorized by Congress will not be able to be completed. ODNR just does not have the funds available to handle a substantially larger local share that would be required due to the inability to obtain this credit.

Through the efforts of Congresswoman Marcy Kaptur and because of the general support of Congress, the entire Maumee Bay Shore Protection project was authorized by Public Law 99-662 in 1986. I don't agree with penalizing Ohio for Ohio's cost-effective construction of the eastern segment of this project and I don't agree with the view that this is only a recreational project. Rather, the purpose of this project is to stem the greatest erosion problem known to exist along the shores of Lake Erie.

I urge the committee to support this proposed language to insure that this just and fair credit is indeed "credited" to the citizens of Ohio for the remaining work that needs to be done. Ohio needs the Corps' help and Ohio needs your help to see that this important project is completed.

I want to express my sincere appreciation to you, Mr. Chairman and Members of this Subcommittee, for the outstanding support you have given to the Corps' civil works program in Ohio. It is through combined efforts such as this that progress can be made in protecting the great water resources of the nation.

Thank you for your consideration.

[Mr. Quilter's prepared statement follows:]

Ohio House of Representatives

Columbus
43215

BARNEY QUILTER
Speaker Pro Tem
47th House District
Lucas County (part)

The State House
Columbus, Ohio 43215
(614) 466-2076
FAX: (614) 644-9494

TESTIMONY OF

THE HONORABLE BARNEY QUILTER

SPEAKER PRO TEM

OHIO HOUSE OF REPRESENTATIVES

WEDNESDAY, MARCH 7, 1990

U.S. HOUSE SUBCOMMITTEE ON WATER RESOURCES

WASHINGTON, D.C.

I WANT TO THANK YOU, MR. CHAIRMAN, AND MEMBERS OF THE SUBCOMMITTEE FOR THE OPPORTUNITY TO SUBMIT THIS WRITTEN TESTIMONY. YOUR CONSIDERATION IS APPRECIATED.

MY NAME IS BARNEY QUILTER, STATE REPRESENTATIVE FROM THE 47TH OHIO HOUSE DISTRICT IN LUCAS COUNTY AND SPEAKER PRO TEM OF THE OHIO HOUSE OF REPRESENTATIVES.

THE FOLLOWING REMARKS REPRESENT MY POSITION REGARDING THE STATE OF OHIO'S NEED FOR LANGUAGE IN THE WATER RESOURCES DEVELOPMENT BILL. THIS LANGUAGE IS VITAL TO ENSURE THAT THE STATE OF OHIO GETS FEDERALLY-FUNDED CREDIT FOR THE SHORE EROSION PROJECT CONSTRUCTED AT THE OHIO DEPARTMENT OF NATURAL RESOURCES (O.D.N.R.) MAUMEE BAY STATE PARK, ON THE SHORES OF LAKE ERIE.

I HAVE BEEN INVOLVED WITH THE MAUMEE BAY STATE PARK PROJECT FOR 22 YEARS NOW. DURING THAT TIME, I HAVE WORKED IN CONJUNCTION WITH ODNR TO ENSURE FUNDING AT THE STATE LEVEL FOR THE PROJECT. THE OHIO GENERAL ASSEMBLY HAS BEEN VERY SUPPORTIVE OVER THE YEARS APPROPRIATING FUNDS THAT WERE NEEDED TO ENSURE THE

COMPLETION OF THE PARK. HOWEVER, IT WAS MY UNDERSTANDING THAT THE SHORELINE EROSION PROJECT WAS TO BE A JOINT VENTURE BETWEEN THE STATE OF OHIO AND THE FEDERAL GOVERNMENT AND WHEN THERE WERE DELAYS IN FUNDING BY THE U.S. ARMY CORPS OF ENGINEERS, THE STATE WENT AHEAD AND COMPLETED THE EASTERN SEGMENT OF THE PROJECT. FURTHERMORE, OHIO'S INITIATIVE TO CONSTRUCT THE EASTERN SEGMENT OF THE PROJECT, WHICH I SUPPORTED, ACTUALLY SAVED FEDERAL AND STATE DOLLARS.

NOW, ALL THE STATE OF OHIO ASKS FOR IS THE CREDIT IT DESERVES FOR COMPLETING THE EASTERN SEGMENT OF THE PROJECT. I AM VERY CONCERNED THAT WITHOUT THIS CREDIT, THE REMAINDER OF THE PROJECT WILL BE SERIOUSLY JEOPARDIZED. I KNOW FOR A FACT THAT THE OHIO DEPARTMENT OF NATURAL RESOURCES WILL HAVE A DIFFICULT TIME OBTAINING THE MONEY NEEDED TO FINISH THIS PROJECT WITHOUT THIS FEDERAL CREDIT.

I HAVE ALSO BEEN TOLD THAT THE ADMINSTRATION CONSIDERS THIS A RECREATIONAL PROJECT. I CONSIDER THIS TO BE INNACCURATE INFORMATION. THE PURPOSE OF THE PROJECT IS FOR THE PROTECTION OF AN IMPORTANT SHORELINE AND WITHOUT THIS PROTECTION WE'RE PUTTING NOT ONLY THE STATE PARK IN JEOPARDY, BUT ALSO THE COMMUNITY SURROUNDING IT. I WANT TO STRESS THAT THIS IS NOT JUST A RECREATIONAL PROJECT, BUT A PROJECT THAT EFFECTS EVERYONE WHO LIVES AND WORKS AROUND MAUMEE BAY. THE EROSION IN THIS AREA IS WORSE THAN ANY OTHER AREA SURROUNDING LAKE ERIE. ALMOST FIFTEEN FEET PER YEAR IS ERODING AND THE EFFECTS WILL EVENTUALLY BE FELT THROUGHOUT THE ENTIRE COMMUNITY.

I URGE THE COMMITTEE TO SUPPORT THE LANGUAGE GIVING OHIO THE CREDIT IT DESERVES TO COMPLETE THIS VITAL PROJECT. THIS PROJECT IS VERY IMPORTANT TO THE PEOPLE OF LUCAS COUNTY, THE PEOPLE OF THE STATE OF OHIO, AND TO ME.

[Mr. Dingell's prepared statement follows:]

STATEMENT BY THE HONORABLE JOHN D. DINGELL
BEFORE THE HOUSE SUBCOMMITTEE ON WATER RESOURCES,
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
March 7, 1990

THANK YOU FOR INVITING ME TO JOIN YOU TODAY TO SPEAK ON BEHALF OF IMPORTANT PROJECTS IN THE 16TH CONGRESSIONAL DISTRICT OF MICHIGAN.

I HAVE BEEN CONTACTED BY A LARGE NUMBER OF CONCERNED CITIZENS PROTESTING THE DEAUTHORIZATION, EFFECTIVE DECEMBER 31, 1989 OF THE OTTAWA RIVER STUDY IN MICHIGAN AND OHIO. THIS PROJECT, AS YOU KNOW, IS PART OF A LIST OF PROJECTS, SUBMITTED BY THE U.S. ARMY CORPS OF ENGINEERS AS REQUIRED BY THE 1986 WATER RESOURCES DEVELOPMENT ACT. RESPECTFULLY, I REQUEST THAT THIS REMAIN ON THE LIST OF AUTHORIZED PROJECTS. IT IS IMPORTANT TO MY DISTRICT AND TO MANY OF MY CONSTITUENTS.

THERE ARE A NUMBER OF GOOD REASONS FOR GOING FORWARD WITH THE OTTAWA RIVER STUDY. FOREMOST IN THE MINDS OF LOCAL RESIDENTS IS DREDGING AND CLEANING UP THE OTTAWA RIVER. THE RIVER IS A VALUABLE RESOURCE FOR RECREATIONAL BOATING AND IS A MAINSTAY OF ECONOMIC STABILITY FOR NEARBY COMMUNITIES AND SMALL-BUSINESSES. APPROXIMATELY 500,000 PEOPLE RESIDE WITHIN A TEN MILE RADIUS OF THE OTTAWA RIVER AND COMPLETION OF THIS PROJECT WILL ENSURE THAT SAFE RECREATIONAL BOATING IS AVAILABLE FOR THESE RESIDENTS AND THAT ECONOMIC DEVELOPMENT OF WATER-SIDE COMMUNITIES IS NOT

THREATENED.

IN FACT, THE OTTAWA RIVER PROJECT WILL HAVE BENEFITS THAT GO WELL BEYOND THE DEFINED SCOPE OF THIS PROJECT. IT IS POSSIBLE THAT THE RESIDUE DREDGING MATERIALS FROM OTTAWA RIVER COULD BE USED AS FILL FOR RESTORATION OF THE NEARBY ERODING WOODTICK PENINSULA TO PROTECT PRECIOUS WETLANDS. DESPITE A LACK OF FUNDING FOR THIS PROJECT, THE SUBCOMMITTEE SHOULD GIVE IT SERIOUS CONSIDERATION.

IN ADDITION, I WISH TO REQUEST THE SUBCOMMITTEE TO PROVIDE ORIGINAL AUTHORIZATION FOR A STUDY OF A GRAVITY SPILLWAY DAM ON THE HURON RIVER IN FLAT ROCK, MICHIGAN. THE DAM WAS CONSTRUCTED IN 1924 AND SUBSEQUENTLY SOLD TO THE HURON-CLINTON METROPOLITAN AUTHORITY IN 1951. THE IMPOUNDMENT IS PRESENTLY USED FOR RECREATION AND PROVIDES WATER FRONTAGE FOR 50 TO 60 ABUTTING RESIDENTIAL PROPERTY OWNERS. THE IMPOUNDMENT IS A MAJOR RESOURCE OF THE OAKWOODS METROPARK NATURE INTERPRETIVE AREA PROVIDING SHELTER FOR MIGRATING WATERFOWL, AQUATIC ANIMALS, FISH, INSECTS AND PLANTS.

IN JULY 1987, THE HURON-CLINTON METROPOLITAN AUTHORITY COMMISSIONED A STUDY TO HAVE THE DAM THOROUGHLY INSPECTED TO DETERMINE THE SERIOUSNESS OF SOME OBSERVED SURFACE FAILURES. THE

RESULTING REPORT, WHICH I REQUEST BE INCLUDED AS PART OF THE OFFICIAL HEARING RECORD, DESCRIBES SEVERE DAMAGE TO THE SPILLWAY SURFACE AND A CRACKED CREST. IT IS NOT BELIEVED THAT THE DAM IS STRUCTURALLY UNSOUND, BUT IT IS RECOMMENDED THAT REPAIRS BE SCHEDULED BEFORE THE CONDITION BECOMES CRITICAL.

THE HURON-CLINTON METROPOLITAN AUTHORITY, OVER THE PAST TWO YEARS, HAS BEEN UNABLE TO OBTAIN FINANCIAL AID FROM LOCAL AND STATE UNITS OF GOVERNMENT TO UNDERTAKE THE NECESSARY REPAIRS. ACCORDINGLY, I AM URGING YOU TO AUTHORIZE A STUDY REQUEST OF THIS PROJECT.

THANK YOU FOR YOUR ATTENTION TO THESE VITAL MICHIGAN PROJECTS.

MCALPINE LOCK AND DAM SYSTEM, KY

TESTIMONY OF HON. ROMANO L. MAZZOLI, A REPRESENTATIVE IN CONGRESS FROM THE COMMONWEALTH OF KENTUCKY

Mr. **Mazzoli**. Thank you very much, Mr. Chairman, and Members of your distinguished panel.

I'll be very brief today. Mr. Chairman, I ask unanimous consent to insert in the record at this point statements of my colleagues, Congressman Jim Bunning from Kentucky's 4th District and my friend from across the Ohio River, Congressman Lee Hamilton, both of whom are in support of this program which I'll describe briefly.

Mr. **Nowak**. Without objection, so ordered.

Mr. **Mazzoli**. Mr. Chairman, I appreciate the opportunity to speak before you and your distinguished subcommittee on a project that's very important to my hometown of Louisville, Kentucky and the Jefferson County area in which it lies plus across the river in Lee's district and in the whole of the Ohio Valley, and that is the improvements that will be made at the McAlpine Locks and Dam located in the 3rd District.

The Louisville District of the U.S. Army Corps of Engineers has proposed this major improvement project and is currently awaiting approval by the Board of Engineers for Rivers and Harbors at Fort Belvoir and we're hopeful that we'll have approval this spring.

Mr. Chairman, this is a proposed $219 million construction project which would extend from 600 feet to 1,200 feet an existing lock at the McAlpine. It would then provide for us twin 1,200-foot locks. This, of course, would expedite the handling of river transportation. Currently, the complex handles some 55 million tons of barge traffic yearly and all projections looking toward year 2000 are for this traffic to dramatically increase.

Mr. Chairman, McAlpine Lock and Dam System is a vital component of the whole Ohio River transportation system. It sits as you know, between two major transportation systems, Pittsburgh, Pennsylvania upriver and then of course, the Mississippi downriver. A bottleneck at this major point or at any point along the Ohio would certainly disrupt barge traffic from the steel mills up in Pennsylvania to the coal fields and oil fields and farms of Kentucky.

These industries and more depend on the Ohio River for their commerce and so we think this program is very important. There's a current lock of 600-foot length at McAlpine which will be 80 years old by the year 2000 and it's contemplated that this construction program would be completed in about the year 2000. This lock is 40 years older than the longer lock, the 1,200-foot lock, and is used primarily as an auxiliary so that basically, we have one lock at McAlpine. The 1,200-foot chamber is closed itself about 15 days a year for maintenance. However, in 1987, three years ago, that particular lock was closed for 36 days and traffic on the Ohio had to be diverted to the smaller lock.

Over 700 tows that year, 1987, were delayed by an average of 30 hours each and of course, it costs many millions of dollars to the industries. Mr. Chairman, the economies of communities up and down the Ohio do not need to be losing money. We, of course, need to be making money and I think as the Chairman said, you're looking to expand authority in connection with economic development. We think, Mr. Chairman, without construction of this second 1,200-foot lock, the problem would only intensify as traffic grows along the Ohio in years ahead.

Mr. Chairman, I would add that the Corps estimates that their operations and maintenance costs will be reduced significantly, as much as $200,000 per year once this new and modern program is installed.

The pre-engineering and design studies will be getting underway this year and are expected to take five years to complete. Actual construction, Mr. Chairman, is contemplated to begin in probably fiscal year 1995 and will take six years or thereabouts to complete. Other vitally-needed Ohio River improvement projects spearheaded by the Corps will be coming on line in coordination with McAlpine.

Mr. Chairman, I realize all the Members who will be wishing to speak and I would just summarize by saying I thank you for your time.

Mr. NOWAK. Thank you very much, Congressman. I understand this system work along the Ohio River and other projects that have come in have had favorable cost-benefit ratios and I was just wondering about that number?

Mr. MAZZOLI. I have not been advised of the number, Mr. Chairman. I'll secure it for the committee but my understanding is that it's a favorable cost-benefit.

[The information provided follows:]

ROMANO L. MAZZOLI
Third District, Kentucky

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Telephone: (502) 582-5129

March 7, 1990

Honorable Henry Nowak
2240 RHOB
Washington, D.C. 20515

Dear Henry:

Many thanks for allowing me the opportunity to appear before your Subcommittee today. I appreciated your time and attention to my testimony on the McAlpine Lock Improvement project, especially given the large number of Members seeking to testify.

In response to your question about the cost-benefit ratio, as you can see from page six of the enclosed Corps document, the ratio is estimated by the Corps to be a favorable 1.6.

I hope you find this information helpful. Let me know if there is any further information you need on this important project.

Please also convey my appreciation to your staff, especially Cathy Evans, whose professionalism and expertise was of great help to me and to my staff in preparing for the hearing.

With all best wishes and warmest personal regards.

Sincerely,

ROMANO L. MAZZOLI
Member of Congress

RLM:jfk
Enclosure

THIS STATIONERY PRINTED ON PAPER MADE OF RECYCLED FIBERS

Name of Report: Ohio River Mainstem, McAlpine interim navigation Feasibility Report
Date: 29 Dec 1989
State: Kentucky

18. Description of Non-Federal O&M Cost: Not applicable

19. Estimated Effects:

Account	Average Annual Equivalent Beneficial Effects	Average Annual Adverse Effects
	Purpose: Navigation	
National Economic Development 1/	$30,300,000	$19,500,000
Total 1/	$30,300,000	$19,500,000

1/ Incremental to without project condition.

Project Economic Life: 50 years
Benefit Cost Ratio: 1.6 (Current Discount Rate: 8-7/8%)

NED Plan Recommended: Yes

Plan B (new 1200 foot lock in location of the existing 600) or Plan D (new 1200 foot lock in location of the existing 360) can be considered as the NED plan. The less than 1 percent differential in net benefits between Plan B and D is not considered significant enough at this stage of study to warrant selection based on computed net benefits alone. The selection of Plan B, as the recommended plan is based on the planning team and industry placing a greater weight on the long term beneficial aspects of Plan B's more desirable separation from the existing 1,200-foot main chamber and therefore less interference between tows. Plan B's better long term performance was given higher weight than benefits accruing over the short-term, i.e., the construction period to Plan D. Because of the negligible difference in net benefits between Plan B and Plan D, and in order to allow flexibility in subsequent PED studies, the final report recommendation calls for authorization of a new 1,200 foot lock in the vicinity of the existing auxiliary locks.

STATEMENT OF MICHAEL J. TOOHEY
BEFORE THE SUBCOMMITTEE ON WATER RESOURCES
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
U. S. HOUSE OF REPRESENTATIVES
MARCH 7, 1990

Mr. Chairman, Mr. Stangeland and members of the Subcommittee, I appreciate the opportunity to appear today in support of authorizations for inland waterway projects.

As you may know, Ashland Oil, Inc. is a diversified energy company with operations in petroleum refining, transportation and wholesale marketing; retail gasoline marketing; motor oil and lubricant marketing; chemicals; construction; engineering; and oil and gas exploration and production. Ashland also has equity positions in Ashland Coal, Inc. and Arch Mineral Corporation. Based in Ashland, Kentucky, the company employs 37,800 people worldwide and is one of the largest industrial corporations in America.

Nearly three years ago some of the members of this distinguished committee toured the McAlpine Locks aboard the **M/V ASHLAND**, following ceremonies renaming the Louisville Customs House and Courthouse for Congressman Gene Snyder. Those of you who were there will recall how difficult it is to transverse this section of the Ohio river. The McAlpine replacement project will not only improve navigation safety, but also greatly ease the congestion on this segment of the waterway.

As you have already heard in the testimony that preceded me, delays at this facility are costing our economy and these delays are expected to worsen.

As a major user of the inland waterways Ashland strongly supports upgrading the locks at McAlpine with an additional 1200 foot lock and we will contribute to the cost of the project through the inland waterway fuel tax.

We are mindful that the Chief of Engineers has not issued his final report on this project. However, if as expected, the report is finalized this summer and the subcommittee has not acted on the authorization, then there can be no action taken for two years on this vital project. We urge the Members of this Subcommittee to include the McAlpine authorization in this year's initiative so that work can proceed expeditiously and in a timely fashion.

Thank you for your consideration.

Mr. **Nowak**. Fine. Thank you very much.

Are there any questions anybody would like to ask this witness?

[No response.]

Mr. **Nowak**. If not, thank you again, Mr. Mazzoli. We will be back in touch with you as the chief's report comes to us and we will be certainly in contact.

Mr. **Mazzoli**. Mr. Chairman, may I join my colleague, Marcy Kaptur, in wishing you well in your endeavor, too. We think that would be a very important program and I certainly would offer any help I could to secure the success of that move.

Thank you very much, Mr. Chairman.

Thank you, the members of the committee.

Mr. **Nowak**. Thank you.

[Mr. Mazzoli's prepared statement follows:]

Third District, Kentucky

Congressman Ron Mazzoli

NEWS RELEASE

Statement

of

Congressman Ron Mazzoli

Before the Subcommittee on Water Resources

of the House Public Works Committee

on the McAlpine Locks Improvement Project

March 7, 1990

Mr. Chairman:

I appreciate the opportunity to speak before you and your distinguished subcommittee today on a project that is very important to Louisville and Jefferson County, Kentucky, as well as to the whole of the Ohio River transportation system: the McAlpine Locks Improvement project.

The Louisville District of the U.S. Army Corps of Engineers has proposed this major improvement project, and it is currently awaiting approval by the Board of Engineers for Rivers and Harbors at Fort Belvoir, Virginia. We are hopeful to have that approval by the end of the month.

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The proposed $219 million construction project would extend a 600 foot lock to match the existing 1200 foot lock and modernize the entire facility. The McAlpine complex handles some 55 million tons of barge traffic yearly and all projections are for dramatic increases in this tonnage in the next few years.

Mr. Chairman, the McAlpine lock and dam system is a vital component of the Ohio River transportation system. It sits between two major transportation centers -- Pittsburgh, Pennsylvania upriver, and the mighty Mississippi downriver. A bottleneck at this major point -- at any of the major points, really -- along the river will disrupt barge traffic from the steel mills of Pennsylvania to the coal mines, oil fields and farms of Kentucky. These industries and more depend on the Ohio River for their commerce, so you can see the importance of the McAlpine Lock system reaches far beyond Louisville and Jefferson County.

The current 600 foot lock at McAlpine will be almost 80 years old by the year 2000. It is 40 years older than the longer lock and is used primarily as an auxiliary. Even so, it is inefficient and undependable.

The 1200 foot chamber is closed about 15 days a year for maintenance, but in 1987, the 1200 foot lock was closed for 36 days and traffic was diverted to the smaller lock. Over 700 tows were delayed an average of 30 hours each, at a cost to industry of over $4 million.

Believe me, the economies of communities up and down the Ohio River don't need to be losing that kind of money. Without the construction of the second 1200 foot lock, this problem will only intensify as traffic grows in the years ahead.

I might add, Mr. Chairman, that the Corps estimates that their operation and maintenance costs will be reduced significantly -- as much as $200,000 per year -- once this project is completed. That would be welcome news for our grandchildren, for a change.

The PED -- Pre-Engineering and Design -- studies on the McAlpine project will get underway this year and are expected to take five years to complete. Actual construction would begin after that -- probably Fiscal Year 1995 -- and will take about six years to complete. Other vitally-needed Ohio River improvement projects spearheaded by the Corps will be coming on line after -- but in coordination with -- McAlpine.

Mr. Chairman, I urge you and your colleagues on the Subcommittee to consider favorably my request to include authorization for the McAlpine Lock Improvement project in this years' Water Projects Authorization bill. I'd be happy to answer any questions you might have.

[Mr. Bunning's prepared statement follows:]

Statement of
Congressman Jim Bunning
March 7, 1990
Subcommittee on Water Resources

Mr. Chairman and Members of the Subcommittee; I appreciate your giving me the opportunity to call your attention to a project that is vital to my constituents in Kentucky---the modernization of the McAlpine Lock and Dam on the Ohio River at Louisville, Kentucky. And I would like to take this opportunity to urge you to do everything you can to expedite this important project.

The need for the construction of an additional 110 by 1,200 foot lock is evident. In 1986, commercial traffic at McAlpine Locks and Dam was 53.4 million tons and it is projected to increase to 72 million tons by the year 2,000 and to 141.6 million tons by the year 2050.

McAlpine is strategically located on the Ohio River between Pittsburgh---America's largest inland navigation port---and the Mississippi. Any shutdown of the main lock and subsequent operation of the auxiliary lock will lead to substantial delays. For example, the main 1,200 foot lock was closed for traffic for 33 days in June and October, 1987, forcing sustained use of the auxiliary 600 foot chamber. 723 tows were delayed an average of 30 hours per tow, costing industry an estimated $4.4 million. Between 1982 and 1988, tow delay costs at McAlpine totalled $28.3 million. And by the year 2000, this problem is expected to become even more severe as the auxiliary chamber will be relied upon to handle traffic levels that greatly exceed its capacity.

The benefits of the McAlpine Locks and Dam are widespread. Twenty states either receive or ship commerce through this facility. While the improvement is estimated to cost $219 million, the incremental average annual benefits and costs associated with Plan B, when compare against the without conditions, are $30,300,000 and 19,500,00 respectively, resulting in a benefit to cost ratio of 1.6. Annual net benefits, incremental to the without project condition are $10,800,000. Simply stated, the nation will save $10.8 million annually in transportation costs throughout the life of the project by the modern twin 110 by 1,200 foot locks at McAlpine.

A modernized river navigation system is essential for getting Kentucky coal to distant markets. And moving Kentucky coal is vital to our State's economy and our State's budget. One estimate projected that Kentucky coal shipped on the river generated direct state and local tax revenue of at least $59.6 million and indirect tax revenues of about $108.9 million.

The National Coal Association projects the demand for U.S. coal, domestic and export, for 1990 at 994 million tons and for 2000 at 1,181 million. These are the Association's moderate projections. By 1987, the industry had already come close to the 1990 projection, at 914.7 million tons. Kentucky has shared in that growth and will continue to benefit for the world-wide demand for coal as long as we all work together for improvements in our region's inland navigation facilities.

So, Mr. Chairman, when we talk about McAlpine, we are talking jobs and economic develop and public services in Kentucky. Keeping this facility at top operating efficiency is absolutely vital to our State and to all of mid-America.

Again, I want to thank you for allowing me this time and to urge you to do everything possible to expedite the completion of this singularly important project.

[Mr. Hamilton's prepared statement follows:]

LEE H. HAMILTON
9TH DISTRICT, INDIANA

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THE HONORABLE LEE H. HAMILTON

Statement before the

House Public Works Committee

Subcommittee on Water Resources

March 7, 1990

Mr. Chairman and members of the committee. Thank you for providing me with an opportunity to express my strong support for authorizing the reconstruction and modernization of the McAlpine Locks and Dam on the Ohio River between southern Indiana and Louisville, Kentucky.

Rebuilding those portions of our inland navigation infrastructure not modernized during the 1950's and 1960's is extremely important to maintaining the economic strength of the Ohio Valley. New locks at the McAlpine site are needed to sustain present and future traffic demands in moving Indiana's waterborne commerce to market. Transportation on the Ohio River at the McAlpine site has increased substantially in size and number since the lock and dam facility was originally built. The facility is no longer able to accommodate river traffic effectively, and lengthy delays are common. These trends are expected to continue well into the next century, and unless the present facility is modernized, congestion in the harbor will become unmanageable.

In the McAlpine Interim Navigation Feasibility Report, the U.S. Army Corps of Engineers recommends replacing the 600-foot auxiliary chamber with a new 110-foot x 1,200-foot lock. The addition of a lock would speed traffic in both directions and relieve congestion in the harbor. The estimated initial construction cost of the project is $219.4 million. Pending the final Chief's Report, the U.S. Army Corps of Engineers' report is now at the final stage of approval.

The final Chief's report is due later this year. Because of the importance of this project to the State of Indiana, I strongly urge that the project be authorized in the 1990 water resources authorization bill, subject to the final Chief's Report. Reconstruction of the McAlpine lock system is critically important to ensuring that the Ohio River remain navigable in the coming decades.

Thank you very much for your consideration of this project.

THIS STATIONERY PRINTED ON PAPER MADE OF RECYCLED FIBERS

Mr. **Nowak**. We now turn to a member of this committee, Congressman Nick Rahall from West Virginia.

MATEWAN PROJECT/HATFIELD BOTTOM, WV

TESTIMONY OF HON. NICK JOE RAHALL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WEST VIRGINIA

Mr. **Rahall**. Thank you, Mr. Chairman.

I want to begin by thanking you for the opportunity to present testimony before your subcommittee today, to follow up on a conversation we had last week. It is an issue of great importance to southern West Virginia involving flood protection.

The request that I am presenting to the subcommittee this morning, Mr. Chairman, is for assistance in securing the legislative language that is necessary to initiate two very important flood control projects that would address serious problems faced by my constituents located in Matewan and Huntington, West Virginia.

I would first like to request that your water resources bill include language which would clarify that the entire town of Matewan, West Virginia, be flood-proofed as originally intended by Congress. As a result of the 1977 flood, we passed a law to provide flood-proofing for a number of cities including Matewan. This flood-proofing was to be done at full Federal expense.

In 1985, the Matewan project was defined excluding half of its city known as Hatfield Bottom. This was simply a technical distinction made to best facilitate flood-proofing. In 1986, cost-sharing was implemented in accordance with the Water Resources Act of 1986, which had so much to do with, Mr. Chairman. Appropriately, the Matewan Project was grandfathered so that it would be built at full Federal expense as first passed by Congress. Now that flood-proofing of Matewan has begun, this technical distinction excluding Hatfield Bottom from the project definition has become a very serious matter.

After many years of delay, the Army Corps of Engineers has determined that because Hatfield Bottom was removed from the Matewan Project definition, it will not be flood-proofed with the rest of Matewan or at full Federal expense. I repeat, this was a technical distinction which should not be maintained. This means that half of the town will be fully flood-proofed for free by 1991, while the other half, Hatfield Bottom, will have to pay more than $450,000 and will have to wait until an unspecified date for any construction to begin.

I think it is safe to say that all of us would hate to see over 60 families suffer due to a technicality and a glitch in legislative language. Of added concern is that Hatfield Bottom is the most populated portion of Matewan, yet under the corps plan, it will be left unprotected. Residents of Matewan are, needless to say, bewildered. The flood-proofing process has taken far too long and now that it finally begins, they discover that it will not be done as originally promised by Congress.

At a time when the world is tearing down walls, I'm sure that erecting a new wall is the last thing any of us would like to do.

However, in this case, a wall is needed to ensure the safety of our citizens. I request that this unfortunate situation be corrected by ensuring that Hatfield Bottom is included in the Matewan Project definition.

Mr. Chairman, I have one additional request for authorization of $400,000 to pay for the Federal cost share of flood control measures along Krout's Creek in Huntington, West Virginia. There are approximately 200 residents along this creek, five businesses and three public buildings including churches and schools located in the 100-year flood plain of Krout's Creek of West Huntington.

The Krout's Creek flood plain has received damaging floods several times over the past 25 to 30 years. Now that the area is densely populated, flood damage has become an annual occurrence. The most recent damaging flood occurred in 1987, affecting 30 residents and three businesses with the total damage estimated to be more than $100,000.

Upon my request and that of the mayor of Huntington, the Huntington District Corps evaluated a number of flood control measures. In 1988, the corps developed a plan that would protect 50 percent of the homes in the area from a 10-year flood and 30 percent of those homes from a 100-year flood. The total cost was estimated to be $620,000 with a benefit-cost ration of 1:2. The City of Huntington agreed to pay 50 percent of the project cost.

Ordinarily, such a project could be completed under the Corps' continuing authority. Unfortunately, the corps conducted further evaluations which yielded two separate cost estimates and unfavorable cost-benefit ratios. Consequently, the Huntington Corps does not intend to continue with this project. Although these evaluations did not produce consistent cost estimates and BCRs, what is consistent is that the difference between whether the ratio is favorable or not favorable is only about $4,000. Only about $4,000 a year on the cost side or the benefit side of the calculation. If the Corps were to continue to evaluate this project, it may well find some savings that would yield a second favorable ratio and I believe the residents of Huntington deserve the benefit of the doubt.

If we do not step in, the project will be lost in the shuffle and these homes will not be protected from annual damage. Therefore, my request is for an authorization of $400,000 to pay for the Federal cost share of this project.

Mr. Chairman, I don't believe we're talking about a great deal of money here. That is particularly true when compared with other programs at the Department of Defense. The difference is that these projects provide direct and tangible protection from loss of life and property and it is a very valuable area in which I think any, if it does occur, peace dividends should go in the years ahead.

Mr. Chairman, again, I thank you very much for allowing me to testify today and I appreciate very much your consideration of these two important projects and the help that you have been over the past many years to the residents of West Virginia.

Thank you.

Mr. Nowak. Thank you very much. We are acutely aware of the problems of floods in West Virginia and certainly we're going to take every step we can in this legislation to try to improve that total situation and your two requests will be in that category.

Are there questions for this panelist?

[No response.]

Mr. **Nowak**. Any questions on this side?

[No response.]

Mr. **Nowak**. We will have the opportunity, of course, to go over the detail as we receive the corps' input on every specific project and as we start to move, we'll get back with you in terms of satisfying any kind of complaints that anyone in the process may have and look forward to working with you and submitting additional information in the future.

Mr. **Rahall**. Thank you very much, Mr. Chairman.

Mr. **Nowak**. Thank you very much, Congressman, for appearing.

[Mr. Rahall's prepared statement follows:]

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TESTIMONY OF

Congressman Nick J. Rahall

TO THE

House Public Works and Transportation
Subcommittee on Water Resources

In Support of Floodproofing at Matewan and Huntington, West Virginia

March 7, 1990

Mr. Chairman. I greatly appreciate the opportunity to testify before your subcommittee today. I would like to ask for your assistance in securing the legislative language necessary to initiate two very important flood control projects that would address serious problems faced by my constituents located in Matewan and Huntington, West Virginia.

I would first like to request that this year's Water Resources Bill include language that would clarify that the entire Town of Matewan, West Virginia be floodproofed as originally intended by Congress. As a result of a technical distinction, the implementation of cost-sharing, in accordance with the Water Resources Development Act of 1986, has created significant problems for floodproofing in the Town of Matewan. Public Law 96-367, Sec. 202 directed the Secretary of the Army acting through the Chief of Engineers, to design and construct, at full Federal expense, flood control measures in a number of cities affected by the 1977 flood. This specifically included the Town of Matewan.

On October 28, 1985, the Matewan project was defined, excluding a portion of the city called Hatfield Bottom. At that time, it was determined that Hatfield Bottom could be best floodproofed through a project called "the Tug Fork Big Bend Cutoff." There was no objection to dividing the project in this manner because project funding was to remain at 100% federal cost and it was expected that both projects would be completed within the same time frame.

Unfortunately, as a result of its expense and complexity, the Big Bend Cutoff project was delayed, and then abandoned. Consequently, the floodproofing of Hatfield Bottom did not begin prior to the implementation of cost-sharing under the Water Resources Development Act of 1986. Although the Matewan project was grandfathered, and will be floodproofed at full federal expense, the floodproofing of Hatfield Bottom was not, since it was no longer included within the Matewan project definition.

Now that the Matewan floodproofing project has begun, the full impact of this technical distinction is apparent. Half of the Town of Matewan will be floodproofed by 1991 at full federal expense, while the other half, Hatfield Bottom, will be floodproofed using a cost-sharing formula at an unspecified date. The Army Corps of Engineers in Huntington has informed me that while the Big Bend Cutoff concept is no longer being considered, it is their intent to include Hatfield Bottom in their Upper Mingo County Report. Unfortunately, this request will not occur until 1992 at the earliest, and the local residents will be responsible for 5% of the total cost, estimated to be $9 million.

This chain of events has left the town bewildered. Hatfield Bottom is the site of the local high school and is the most populated section of the Town of Matewan. Residents have waited several years for floodproofing to begin only to discover that it will not occur as Congress originally promised. They can see no reason why half the Town of Matewan should be floodproofed by 1991 at full federal expense, while the most populated portion will remain vulnerable to flooding well after 1992, and will require substantial local funds to be floodproofed. I respectfully request that this unfortunate situation be corrected by re-including Hatfield Bottom in the Matewan Project definition.

I would also like to request an authorization of $400,000 to pay for the federal cost-share of flood control measures along Krouts Creek in Huntington, West Virginia. Krouts Creek flows through a densely developed residential area of west Huntington. There are approximately 200 residences in the 100-year floodplain of Krouts Creek. Additionally, five businesses and three public buildings including churches and schools are located within the floodplain area.

The Krouts Creek floodplain has received damaging floods several times over the past 25 to 30 years. During this time, residential growth has taken nearly all available land along the stream. Consequently, minor to serious flood damage to homes in this area has become an annual occurrence. The most recent damaging flood occurred in May and June of 1987 affecting 30 residences and 3 businesses with a total damage estimated to be more than $100,000. This prompted me and the Mayor of Huntington to request the assistance of the Army Corps of Engineers in developing a flood control plan.

The Huntington District Corps evaluated a number of flood control measures. In 1988 the Corps conducted a reconnaissance study which involved deepening and widening the channel and culvert replacement. Under the plan, 50% of the homes would be protected from a ten year flood and 30% would be protected from a hundred year flood. The total cost was estimated to be $620,000 with a Benefit-Cost Ratio (BCR) of 1.2. The city of Huntington agreed to pay 50% of the project cost.

Ordinarily, such a project could be completed under the Corps' continuing authority. Unfortunately, the Corps conducted a subsequent re-evaluation in June 1989 and determined that the BCR was 0.78 at a total project cost of $931,000. A second re-evaluation conducted in November of 1989 determined that the BCR was 0.95 with a total cost of $721,000. This latest evaluation estimates the annual benefits to be $66,300 and the annual costs to be $69,500 yielding the 0.95 BCR. Consequently, the Huntington District Corps has made a negative recommendation to the Ohio River Division.

It is not clear to me why a consistent Benefit-Cost Ratio cannot be determined. However, one aspect of these evaluations that is consistent is that the difference between whether the ratio is favorable or not favorable is only about $4,000 a year on the cost side or the benefit side of the calculation. Because the project is small and only a few thousand dollars effects the Benefit-Cost Ratio so drastically, I do not believe it is terribly useful or important. If the Corps continued to evaluate this project, it may well find some savings that would yield a second favorable ratio.

What is important is that this project is of great significance to local home owners. Their homes and property are annually damaged by flooding. It is difficult to explain to them that their property cannot be protected from flood damage because the latest evaluation was off by a few thousand dollars and did not yield an appropriate Benefit-Cost Ratio. I believe they deserve the benefit of the doubt. The average total cost of the project as calculated by the Corps in these three evaluations is roughly $800,000. Therefore, I respectfully request an authorization of $400,000 to pay for the federal share of this project to put an end to this problem.

Thank you again for allowing me to testify before your Subcommittee today. I greatly appreciate your consideration of these two important projects.

Mr. Nowak. We now turn to Congressman Bob Wise, also of West Virginia.

MARMET LOCKS AND DAM

TESTIMONY OF HON. ROBERT E. WISE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WEST VIRGINIA

Mr. Wise. Mr. Chairman, you're getting the West Virginia double whammy today. It's a "twofer." I just want to say as a member of this committee on temporary leave of absence to the budget committee, it's a privilege to be here today, particularly because you're doing what I think we need to be doing in the budget which is looking at investment in this country and what we can do to get a greater rate of return. Building this kind of infrastructure is part of that.

I'd like to appear before you today to request advanced authorization——

Mr. Nowak. I just might mention, I saw you on CNN questioning—was it Eagleburger?

Mr. Wise. Yes, sir.

Mr. Nowak. I thought you asked him very appropriate questions and I hope for those appropriate questions, we can respond also.

Mr. Wise. Well, thank you very much.

I appear before you today to request advanced authorization for a much-needed navigation project in my district, the addition of a new lock at the Marmet Locks and Dams located at river mile 67.7 on the Kanawha River in West Virginia.

I've been in consultation with the Huntington District of the Army Corps of Engineers regarding this project. The corps has concluded that construction of a new lock at Marmet is essential to relieve navigation delays and to accommodate the increased barge traffic which is projected for the coming decade. I'd just like to add as an aside, Mr. Chairman, that the Kanawha River flows into the Ohio River and this subcommittee, in turn, the full committee, in the last inland waterway bill, authorized the construction of the Gallipolis locks on the Ohio River, in turn then authorized the construction of the Winfield locks on the Kanawha River and this is the last set of locks in that inland waterway system. So failure to upgrade this as Gallipolis and then Winfield are being upgraded would mean that there's a big log jam on the Ohio River.

The primary navigation problem at Marmet is the small lock chambers compared to the number of tows and the size of barges traveling the Kanawha River. The present lock chambers were designed to accommodate four standard Ohio River barges measuring 26 feet by 175 feet. The lock chambers, however, can accommodate only one of these common jumbo barges. That means that there's an average of over four hours required for a commercial tow to lock-through Marmet and the average tow requires nearly four lockages.

Tonnage on the Kanawha River has increased by a factor of ten since the project was constructed in 1934. So you can see the problem. The Kanawha River, I might add, is a major shipping point for not only coal but also chemicals and which in turn flow to the Ohio.

The Army Corps of Engineers has informed me that traffic management measures at Marmet, including the use of helper boats, will increase lockage capability but still will not allow for the high level of traffic forecast for the next century. After considering numerous alternatives, the corps has concluded that construction of a new lock at the existing dam site will be the most feasible means of increasing lock capacity at Marmet.

The corps would like to construct a new lock on the right bank of the Kanawha River. This will require the construction of a temporary lock to pass traffic during the construction of the permanent main lock.

Mr. Chairman, what I'd appreciate is, rather than reading my entire statement, if I could just include it in the record and I'll conclude.

Mr. NOWAK. Without objection, so ordered.

Mr. WISE. Mr. Chairman, I'm requesting that this committee give advanced authorization to this project at the Marmet Locks which I have described. The Corps of Engineers is not ready this year to begin construction, but if the project is authorized in advance, the corps will more easily be able to engage in the planning process for the project.

What I'm requesting is that the Marmet project be authorized subject to a final report of the Chief of Engineers. The engineering work is proceeding at a normal pace but what we're requesting and which has been done several times before by this committee, is that project be authorized subject to the final report of the Chief of Engineers. This type of authorization is not without precedent for inland water projects. The construction project for the new lock at the Winfield Lock and Dams, for instance, was also authorized subject to the Chief Engineer's report and that greatly facilitated the planning process for the new lock which begins construction in April. I might point out that this procedure meant that the Winfield Lock is actually a year ahead of anybody's time table and yet had the authorization not been granted in this manner, the Winfield Lock would still be on the drawing boards and would be three to five years behind.

So what we're asking is that this committee look at this vital project and authorize it subject to the report of the Chief of Engineers.

I appreciate very much the interest and attention of the members of the subcommittee and I'd be happy to answer any questions.

[Mr. Wise's prepared statement follows:]

BOB WISE
3RD DISTRICT, WEST VIRGINIA

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STATEMENT OF CONGRESSMAN BOB WISE
OF WEST VIRGINIA
BEFORE
THE SUBCOMMITTEE ON WATER RESOURCES
OF THE HOUSE COMMITTEE ON PUBLIC WORKS

MARCH 7, 1990

Mr. Chairman, Members of the Committee, I want to thank you for allowing me the opportunity to appear before you today as you prepare to formulate this year's water resources authorization bill. I know that you will be receiving a great deal of testimony, so I will keep my remarks brief and to the point.

I appear before you today to request advance authorization for a much-needed navigation project in my district, the addition of a new lock at the Marmet Locks and Dam located at river mile 67.7 on the Kanawha River in West Virginia. I have been in consultation with the Huntington District of the Army Corps of Engineers regarding this project. The Corps has concluded that construction of a new lock at Marmet is essential to relieve navigation delays and to accomodate the increased barge traffic which is projected for the coming decade.

The primary navigation problem at Marmet is the small lock chambers compared to the number of tows and size of barges that travel the Kanawha River. The Marmet lock chambers were designed to accomodate four standard Ohio River barges which measure 26 feet by 175 feet. The lock chambers, however, can accomodate only one of the more common jumbo barges which are 35 feet by 195 feet in size. These large barges make up about 60 percent of the fleet using Marmet Locks. An average of over 4 hours is required for a commercial tow to lock through Marmet, and the average tow requires nearly four lockages.

The traffic at Marmet presently totals about 11 million tons, 92 percent of which is coal produced in south-central West Virginia. Tonnage has increased by a factor of ten since the project was constructed in 1934. Following completion of the new lock at Winfield Locks and Dam, which is at mile 31.1 on the Kanawha River, barge traffic is expected to increase significantly through the remainder of the 1990's and into the 21st century.

Marmet Locks currently have a capacity of about 20 million tons annually, and based on traffic forecasts capacity could be reached by or before 2010. Future traffic delays will dramatically increase as tonnage approaches capacity of the existing locks. Such traffic delays result in increased water transportation costs and subsequent economic loss to the consumers and to the nation.

Water transportation of coal and chemicals is extremely important to the economy of the Kanawha Valley. The coal and chemical industries are major contributors to employment and earnings in the region and they rely heavily on the river systems for low-cost transportation of both raw materials and final products. For example, Kanawha Valley chemical plants annually ship nearly one million tons of chemicals on the Kanawha River. About ten million tons of coal produced from the Kanawha Valley pass annually through the Marmet Locks. This coal is used extensively for electric power generation.

Traffic on the Kanawha River has grown rapidly over the past few years as utilities seek sources of high-quality coals, which is the type of coal available in south-central West Virginia. Marmet Locks have served the water transportation needs of the region well for over 50 years; however, additional lock capacity will be needed to accomodate the traffic forecast to move through Marmet in the coming years. Failure to expand capacity to give Marmet Locks the ability to handle growing traffic demands may well inhibit the competitiveness of the region's basic industries.

The Corps of Engineers has informed me that traffic management measures at Marmet, including the use of helper boats, will increase lockage capability, but still will not allow for the high level of traffic forecast for the next century. After considering numerous alternatives, the Corps has concluded that construction of a new lock at the existing dam site will be the most feasible means of increasing lock capacity at Marmet. The Corps would like to construct a new lock on the right bank of the Kanawha River. This will require the construction of a temporary lock to pass traffic during construction of the permamnent main lock.

Mr. Chairman, I am requesting that this Committee give advanced authorization to this project at the Marmet Locks which I have described. The Corps of Engineers is not ready this year to begin construction, but if the project is authorized in advance the Corps will more easily be able to engage in the planning process for the project. I therefore request that the Marmet project be authorized subject to a final report of the Chief of Engineers. This type of authorization is not without precedent for projects in my district. The construction project for the new lock at the Winfield Locks and Dam was also authorized subject to the Chief Engineer's report, and that greatly facilitated the planning process for the new lock, which is currently under construction.

Mr. Chairman, Members of the Committee, thank you very much for this opportunity to testify. I appreciate your attention and your consideration of my request.

Mr. **Nowak**. Thank you very much, Mr. Wise. We will certainly take your remarks into consideration as we move forward and these conditional authorizations do, I think, serve a purpose and we urged the corps last year or the last cycle and we will again this cycle, to look and bring forward the kinds of recommendations that will move the process through as fast as we can and this is one area and one project that would be a great candidate to accomplish that.

I look forward to working with you on this request.

Are there any questions from any members on any specifics? Let me recognize Arlan Stangeland who is our minority leader at this time for any remarks he might make or any questions.

Mr. **Stangeland**. I apologize for being late, Mr. Chairman. We had a meeting of the oil spill conferees with Secretary Skinner and consequently couldn't be here.

I just ask that my statement be made a part of the record and proceed with the hearings. I understand we have a long agenda. We want to hear our colleagues tell us about their projects so we get a good background of hearing before we go to markup. I welcome Mr. Wise and I see Mr. Rahall has already left but I have no more to say at this time, Mr. Chairman.

[The prepared statements of Mr. Stangeland and Mr. Hammerschmidt follow:]

STATEMENT OF HONORABLE ARLAN STANGELAND
CORPS PROJECTS HEARING
WATER RESOURCES SUBCOMMITTEE
MARCH 7, 1990

THANK YOU, MR. CHAIRMAN. TODAY, THE SUBCOMMITTEE CONTINUES ITS HEARINGS FROM LAST WEEK ON CORPS OF ENGINEERS' PROJECTS AND PROGRAMS. THESE HEARINGS AND PERHAPS ADDITIONAL ONES TO BE SCHEDULED IN THE FUTURE ARE TO LAY THE FOUNDATION FOR AN OMNIBUS WATER RESOURCES BILL TO BE ENACTED BEFORE THE END OF THE YEAR.

AS WE'VE STATED BEFORE, MR. CHAIRMAN, IT IS ESSENTIAL THAT THIS COMMITTEE AND THE REST OF CONGRESS REMAIN COMMITTED TO THE TWO-YEAR AUTHORIZATION TRACK. BY ENACTING NONCONTROVERSIAL, MANAGEABLE WATER BILLS EVERY TWO YEARS, WE ADD CERTAINTY, PREDICTABILITY AND CONTINUITY TO THE NATION'S LARGEST WATER RESOURCES DEVELOPMENT PROGRAM. IT ALSO MAKES OUR JOB EASIER IN KEEPING TO THE IMPORTANT COST SHARING REFORMS FROM 1986, AVOIDING PREMATURE AUTHORIZATIONS, AND MEETING THE COUNTRY'S WATER RESOURCES NEEDS THROUGH THE AUTHORIZATION PROCESS RATHER THAN THROUGH LEGISLATION IN THE APPROPRIATIONS PROCESS.

TODAY, WE BEGIN TO RECEIVE VALUABLE TESTIMONY FROM OUR COLLEAGUES, STATE AND LOCAL WITNESSES, AND THE GENERAL PUBLIC. WE MAY NOT BE ABLE TO PROVIDE LEGISLATIVE SOLUTIONS TO EVERY PROBLEM ADDRESSED TODAY. SOME MAY BE INAPPROPRIATE FOR THE CORPS OR SIMPLY PREMATURE. BUT IN ANY EVENT, TODAY'S HEARING WILL HELP TO IMPROVE THE CORPS' PROGRAMS GENERALLY AND EITHER LEAD TO SPECIFIC SOLUTIONS OR PREVENT FUTURE PROBLEMS.

STATEMENT OF
THE HONORABLE JOHN PAUL HAMMERSCHMIDT
SUBCOMMITTEE ON WATER RESOURCES
HEARING ON WATER RESOURCES DEVELOPMENT ACT
MARCH 7, 1990
10:00 AM, 2167 RHOB

MR. CHAIRMAN:

I WANTED TO TAKE THIS OPPORTUNITY TO THANK ALL OF MY COLLEAGUES WHO ARE HERE BEFORE US TODAY TO TESTIFY ON THE BIENNIAL WATER RESOURCE DEVELOPMENT ACT.

I KNOW THAT WE HAVE A LONG LIST OF MEMBERS WAITING TO TESTIFY BEFORE US, AND I WANT TO THANK THEM FOR THEIR PATIENCE IN THIS MATTER. I ALSO WISH TO INFORM THEM THAT WE ARE SCHEDULING ANOTHER DAY OF HEARINGS NEXT WEEK IN ORDER TO RECEIVE FURTHER TESTIMONY FROM THOSE INTERESTED IN COMING BEFORE US WITH REGARD TO THIS SUBJECT.

I ALSO WISH TO THANK CHAIRMAN NOWAK FOR SCHEDULING THIS GROUP OF HEARINGS, AND REALIZING THE GREAT IMPORTANCE OF CONDUCTING THESE HEARINGS IN ORDER THAT THE COMMITTEE CAN RESPONSIBLY AND SUCCESSFULLY COMPLETE CONSIDERATION OF THE WATER RESOURCES DEVELOPMENT BILL.

AGAIN, I WELCOME MY COLLEAGUES BEFORE US TODAY.

Mr. Nowak. Thank you very much and thank you, Mr. Wise.

We are on time and the next witness is not on time.

Mr. Nowak. I would like to recognize anyone that would like to make a statement at this time. We have Congressman Panetta and following him, of course, the rest of the list. We're trying to put them in at convenient times. However, everybody's schedule is going to be changed a little today and I would just ask that the committee stand in recess until our next witnesses are called and can get away from their other committee responsibilities.

We'll stand in recess for five minutes.

[Recess.]

Mr. Nowak. The subcommittee will come to order.

Our recess has ended and we have with us our distinguished colleague from Oklahoma, Wes Watkins. We will be happy to receive his testimony at this time.

Mr. Watkins.

TESTIMONY OF HON. WES WATKINS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OKLAHOMA

Mr. Watkins. Thank you, Mr. Chairman, members of the committee. I'd like to ask unanimous consent that my entire statement be made part of the record and I'll summarize.

Mr. Nowak. Without objection, so ordered.

Mr. Watkins. Thank you, Mr. Chairman very much. I appreciate that. I'll try to be overall brief on things I'd like to talk about specifically in my district but there's one that I'd like to take a couple of moments. There's some national concern that I'd like for you as Chairman and Mr. Stangeland and members of the committee to reflect on with me just a little bit. Lots of times, it seems that we cannot find time to reflect just how a certain policy is impacting the Nation like water policy.

For instance, the first thing I'd like to discuss which is of national importance, says the gentleman from Tennessee, that I think we should give some thought to, instead of using regional and local benefits in the U.S. Corps of Engineers' methods of figuring water studies in their formulas, et cetera, and calculating the national economic and development—the NED benefits—by that I mean this. They only use the Federal benefits in trying to come up with projects when you're looking at cost-benefit ratios. They do not look at the benefits and you know the cost-benefit ratios have got to be one to one, more benefits' dollars than there are costs but they do not allow the local benefits, the regional benefits, to be included in figuring and including the benefit ratio.

Now, that is wrong. That is totally in error in policy matters. So I share it with you as we look at figuring those benefits. The other thing, you know, Mr. Dingell, we've changed the policy just a few years ago where we've got up front financing required. Now, many of these projects are taking on 35 percent up front, or 25 percent. Yet the cost-benefit ratio, if it's just national, they should only be against the Federal cost. Why charge it against the local benefits if they're putting up local cost phase of this project? Right now, we can't count that against the entire project.

I hope I'm making sense in this because it definitely affects water policy in being able to literally muster the dollars to be able to get the job done. For instance, if a State puts up 35 percent of the cost of a flood-control project, I also believe that 35 percent of that flood control storage in that lake should go to the State. Right now, we don't allow that. We take the whole thing on a Federal level. I think it would be a very good political issue if nothing else if we wanted to make it one out across your States as well as my State but I think we have to reflect on it to see where we are with it.

I mention this because it's definitely some specifics that are taking place and going on in the water policies of this Nation. So, I'd like to ask members of the committee and the council, et cetera, to reflect on this. Is our present policy fair, if we're going to require up front financing, that local people, the States and others, have to come up with all this share of it and we've only initiated that two to four years ago. I think we need to change this formula in what we're requiring along the way and let the local and regional areas benefit from it.

The first specific project I'd like to mention, I'm asking authorization on because the corps entirely thought that they had jurisdiction, authorization, on account of a sediment control structure on Lake Texoma being with Pennington Creek. Now, they proposed that this be a problem of sedimentation, a silting in, and it came up all the way up the ladder to the national office and they said hey, well, we can't do that but we've got to have some authorization.

Now, it came through the district out of Tulsa and Mr. Geren went through Dallas, the regional office there, but now we find we need to have some kind of authorization on it. So I'd like to ask that be included in authorization along with a number of other items that we have including a Wister Lake Dam repair project that we have where it's requiring—the dam safety project is requiring that a pipeline be moved et cetera from local areas. Now the corps comes back and says the local communities have got to pay their share of doing that which is being done because of the dam safety repairs that are being made, not because of the local people.

So now they're being forced to come up with the additional costs, et cetera. There are a number of other projects I have listed here and I know I've got two other colleagues and because they're both seniors to me, I want to make sure I reserve time for them and be considerate of their time.

I would like to mention another project and I know you're going to hear more about it. I know your colleague, John Paul Hammerschmidt, is deeply involved in this and I think concerned. It's dealing with the McClellan-Kerr Arkansas River Navigation System, the lock and dam zero at Montgomery Point Lock. Mr. Chairman, members of the committee, the navigation on the Mississippi and on the McClellan-Kerr Arkansas River Project is in jeopardy. At times, when it's real, real drought periods, we need this particular project in order to be able to maintain water levels for navigation throughout that system. So I share a deep concern. I think you'll probably be hearing a great deal more about that from Mr. Hammerschmidt and other people here today.

So Mr. Chairman, I would like to reserve the opportunity for myself and other members of the Oklahoma delegation to discuss Canton Lake and other projects in Oklahoma as soon as we get some of our local people all together on some of these important projects for Oklahoma.

So, Mr. Chairman, I want to say thanks to you and the committee for allowing me to bring forth old testimony today but also allowing me to submit my entire testimony as part of the request that we have from Oklahoma and I know there will be others in the next few hours that will be probably brought in for your consideration.

So, Mr. Chairman, thank you so much.

Mr. NOWAK. Thank you.

We have had the opportunity to have discussions with Mr. Watkins in the past and when I had the privilege of being the Chair of the Economic Development Committee, we had the same type of a national look and a regional approach to problems in economic development, trying to find a way to broaden the impacts of a particular type of project to act in his words, as a catalyst for economic development for a region or a State and certainly, we try to pursue that kind of initiative as we move forward with our water resource bill this year.

Each year we've been able to improve in that area a little bit but I think he brings a real problem to the committee on how we determine these regional and local benefits and how that plays a role in the cost-sharing and the real impact of economic development on a community. We look forward to discussing this with you in detail and I know that the people of Oklahoma have benefited in the past by your representation and by your broad outlook in this area and I again would be happy to spend more time with you as we proceed on with this bill.

Congressman Stangeland.

Mr. STANGELAND. I have no questions of our good friend, Mr. Watkins. He's been very helpful to us as an authorizing committee from the appropriations standpoint. We certainly want to work with him and I would prefer that we continue on with the other witnesses, Mr. Chairman.

Mr. NOWAK. We have requested all the members to withhold the oral questions so that we could move through and give all the Congressmen the opportunity to testify and we may be submitting questions in writing to you.

[Mr. Watkins' prepared statement follows:]

Testimony of the
HON. WES WATKINS
Member of Congress

Before The

Subcommittee on Water Resources,

Committee on Public Works and Transportation

March 7, 1990

Mr. Chairman and Members of the Committee, thank you for allowing me to testify today on vital public works projects that will impact not only my Congressional District, but Oklahoma and the nation as a whole. I will confine my testimony to six specific projects.

First however, I would like to turn to an issue of national importance -- that of using regional and local benefits in the U.S. Corps of Engineers method of water studies formulas for calculating National Economic Development (NED) benefits. Current Corps policy is nothing short of hypocrisy with respect to this issue.

Perhaps the best way to describe the current status is to look at an example of the construction of a flood control lake. Let's say we accept the concept that the local sponsors of water projects must pay up-front financing.

By the way Mr. Chairman, I will not address the issue of up-financing today because many of you already know how I feel on the issue. It shifts the focus from whether a project is needed and is economically justified to whether a project's local sponsors have the finances to pay for construction of the project in advance. It's a case of the "have's" versus the "have-not's". Those that have, will get water projects, and those that don't, won't.

Nevertheless, we will assume that we will accept up-front financing for our hypothetical flood control lake.

First, the Corps must determine whether the project is economically feasible. The Corps says its feasibility study must be based only on NED (National Economic Development) benefits -- we are not allowed to count local and regional benefits.

We can't count jobs created by the construction of the lake; we can't count the increase in wages the area would experience; we can't count benefits from the local economic stimulus created by the existence of such a lake. We can only count the benefits to the nation as a whole.

This is the old federalization argument -- the federal government wants the states to put up more of the cost of a program, but not have control over how the program is run.

If the state puts up 35% of the cost of a flood control project, I believe they ought to own 35% of the flood control storage in the lake. And they ought to be able to operate it as they wish. And, they ought to be able to convert it to water storage, hydropower, or whatever they wish, because they paid for it. But the Corps wants to run it all their way.

Since the benefits are for the national economic good, and since the federal government is putting up only 65 cents on every dollar invested in this hypothetical lake, the federal government should insist on only 65 cents return on every dollar invested. They only need to cover the cost of their investment. If they won't accept that, the Corps ought to acccept counting local and regional benefits in the analysis of a project.

If the Corps expects state and local sources to put up the costs of a water project up front, they've got to quantify what the state and local and regional economic benefits are. They can't have it both ways. If they want up-front financing, they've got to be ready to go through these two steps.

Is the Corps prepared to accept sharing the operation of these projects if they're going to have joint ownership? I think not. Consequently, I believe they must include local and regional benefits.

Mr. Chairman, the strength of the fabric of this country is not woven from a single thread but a series of threads. Our strength and wealth lies in activities that provide for local and regional benefits. The sum of these activities plus an overall national perspective totals a great country. Let us not overlook this fact.

I would hope that any legislation this Committee moves on will include recognition that local and regional benefits are part of the Corps formula in overall determination of project feasibility.

The first specific project that I want to mention today is Pennington Cove, part of the Denison Dam-Lake Texoma, Texas and Oklahoma Project. The Pennington Creek Cove Dredging Project is important to the City of Tishomingo, Oklahoma, and the silting of this former Corps public use area is impacting the economy of the area. I have been working extensively with the Corps on the project for about the last three years.

Finally, the Corps came forward with a recommended solution which would provide limited dredging and a sediment control structure to raise the water level in the cove. The Corps issued a public notice of its intent to build a low water dike across Pennington Creek to prevent silt from backing into Pennington Creek from the Washita River. In addition, the Corps would dredge the creek in the area of the existing boat ramp, which would make the stream navigable again. Corps officials estimated the dike would raise the water level in the Creek approximately 3 feet, which would improve the stream for boating and recreation activities. For two consective years adequate appropriations had been provided for the project.

In July, 1989 I was advised that the proposed solution that had cleared the District and the Division levels of the Corps would not be approved by the Headquarters in Washington and that in fact the small structure to raise the water level would require authorization to proceed with federal construction. Mr. Chairman, I would hope this Committee could assist me in authorizing this badly needed project. The people of Tishomingo, Oklahoma are counting on you to be able to implement the solution to their problem.

The second project I will address involves the Wister Lake, Oklahoma, rehabilitation work with relation to Dam Safety Assurance. The need for repair of the dam was determined by the Corps. In preparing to do the work on the dam, the Corps relocated several utility electric-line poles. The electric company has the same standard agreement as others with easement rights etc.

However, in strengthening the dam as a result of their own determination of need, the Corps has told the Poteau Valley Improvement Authority (PVIA) that they must move their 20-inch raw water intake line because it is in the best interests of the Government for operation of the project. Because of the impact of the dam safety rehabilitation project on PVIA's line, the Government has recommended that PVIA relocate the line.

While the Corps says PVIA must pay for the relocation of the waterline as stipulated in the agreement, they freely relocated the electric line. Do we have a double standard? I would hope not.

The bottom line is that the relocation of the line is estimated to cost about $400,000. PVIA just completed a loan of about $200,000 that would allow for repairs to their system and have exhausted their debt serviceability. This is a struggling system that has shown remarkable recovery in its books during recent times. This system should not be expected to pay for the relocation of a line that is a result of actions on the part of the Corps. I need your assistance to allow the federal expenditure for replacement of this line. It is anticipated that no additional appropriated dollars will be needed and that the cost should be absorbed in the dam safety rehabilitation. However, if additional appropriations are needed I am fully prepared to assist in this effort.

A third item also involves Wister Lake, Oklahoma and the repair of that project's dam structure. The Corps has contended that repair of this structure was to be considered Major Rehabilitation and that the work at Wister was not justified under guidelines defining Dam Safety Assurance work. As part of the 1986 Act passed by this Committee, Section 12 addressed cost-sharing as related to dam safety. I do believe the Committee's intent was for minimal cost-sharing on these types of projects. I do not believe it was the Committee's intent for full-cost sharing on projects that are in the interest of public safety.

Wister Lake is a case in point of where the Corps is trying to get every last dollar without consideration of the facts. Two other examples where the Corps has insisted that Dam Safety Assurance work is Major Rehabilitation is Beaver Lake, Arkansas, and Sam Rayburn Lake, Texas. Clearly, the Corps is misguided in their interpretation of Section 12 cost-sharing and moreover intends to circumvent the issue and compound their errors by reclassifying dam safety work to major rehabilitation. I would appreciate the Committee looking into this to see what clarity might be provided with regard to this matter.

A fourth item is the Tulsa - West Tulsa Levees, Keystone Dam to Tulsa, Arkansas River, Oklahoma. We have a situation where there is a potential for catastrophic loss of life and property behind the failing Tulsa - West Tulsa levees in the vicinity of Tulsa, Oklahoma, should a major flood occur as it did in 1986. In excess of $1 billion in property is at stake as well as the lives of thousands of citizens.

Corps studies which included evaluation of the Tulsa - West Tulsa levees have determined that there are numerous pipes and culverts throughout the levees that are in need of rehabilitation and replacement. The Corps contends that the responsibility of the project remains with the Tulsa County Drainage District No. 12, yet the structure is quickly moving toward the end of its' expected life span of about 50 years.

Mr. Chairman, the funds are not there to do this work. Nothing short of a wavier to allow federal expenditures to be used in the repairs will solve the problem. We are not talking about a great deal of money to solve the problem. The Corps has estimated the rehabilitation cost to be about $1.25 million. Authority is needed to allow this repair to proceed. Provided we are able to get this authorization, we are fully prepared to see the appropriations through on this project.

Another project which has broad support among a number of Members in several states is the Lock and Dam 0, or the Montgomery Point Lock and Dam on the McClellan-Kerr Arkansas River Navigation System, Locks and Dams, Arkansas and Oklahoma.

The Corps agrees that the project is part of the originial authorization document. House Document 79-758, which was the basis for authorization of the project by Public Law 79-525, reflected a lock and dam near the mouth of the White River in the multi-purpose plan. Initial studies indicated this lock and dam would be required to provide sufficient depth over known sediment deposits in the White River Entrance Channel and for varying elevations of the Mississippi River. Subsequent to project authorization, and during detail design studies, this structure was deleted from the system, because the Mississippi River was considered very stable for the Entrance Channel's navigational needs.

More recent studies of the Mississippi River have indicated channel stabilization and other related works on the Mississippi River have lowered the stages on the Mississippi River at the entrance to the waterway. The Corps' own figures indicate that since 1980 there have been navigation restrictions on the White River Entrance Channel an average of 42 days per year. The Corps has estimated the economic impact to be approximately $425,000 per day for each day navigation restrictions are incurred on the entrance channel.

Since there does not appear to be any problem with the authorization of the project, the Members involved intend to pursue appropriations this fiscal year for the project. I would ask simply that when the time comes for such action that the Committee would support us in that effort.

Mr. Chairman, I would like to reserve the opportunity for myself and other Members of the Oklahoma delegation to return to this Committee at some future date to discuss Canton Reservoir, Oklahoma with you, provided that the entities involved are able to reach final agreement on the authorization needed.

It is my understanding that preliminary discussions are underway for the City of Oklahoma City to assume the storage rights for Canton Reservoir from the City of Enid, Oklahoma. The City of Oklahoma City has contracted with the Corps, on an interim use basis, from 1955 to 1988 for the water supply and irrigation strorages.

The Corps has indicated that the acquisition of permanent rights to the water supply and irrigation storages in the Reservoir will require legislative action because the existing authorizatioin specifically assigns the water supply storage to the City of Enid, Oklahoma, and the irrigation storage requires reauthorization to Municipal and Industrial water supply storage.

Thank you for allowing me this opportunity. I always appreciate working with my friends and colleagues here in the authorization committee as we work together on public works projects to build a greater Nation and a greater Oklahoma.

Mr. NOWAK. Let us now turn to Congressman Gibbons of Florida.

TAMPA BAY

TESTIMONY OF HON. SAM GIBBONS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA

Mr. GIBBONS. Yes, sir, Mr. Chairman.

I appreciate the opportunity to testify before your subcommittee. I can make my presentation rather simple. I'm here to protest a bureaucratic problem that I think all districts that have harbors are having.

The problem is that someone over in the Pentagon or the Office of Management and Budget has changed the policy. They have said that any improvement in rivers and harbors types of legislation can't seem to benefit just one user and their restriction unnecessarily hampers the competitiveness of my district. Let me say, in my district the public works project located there is a great national asset. My port exports more goods than it imports by a substantial margin, but even when you discount the imports, the duties that are collected on the goods that come in far exceed the amount of money that the Federal Government has ever in the history of the government put into the port.

My port is in competition with ports all around the world and our Federal Government through the foreign aid program and through the Export-Import Bank is constantly financing these other ports. So I've got the peculiar situation of the Federal Government being the biggest competitor that I've got for business in my port. They constantly pour foreign aid dollars into other ports around the world and they pour export-import subsidies into products that compete with the products that are developed in my area.

Now of course when you think of Florida, you think primarily of oranges and grapefruit, but one of the great products that we produce and we produce a large supply—a large proportion of the world supply—is phosphate. Now, Mr. Stangeland will know what phosphate is. It's absolutely essential to food. You can't grow food without having phosphate and you can't grow it as well as the United States does or as well as the rest of the world must do to keep us all fed if you're not going to produce phosphate.

Phosphate takes large ships of deep draft and especially if you're going to be competitive in selling that product. Now, we don't have a monopoly on phosphate. Phosphate is produced around the world and we don't have any monopoly, but when our Federal Government insists on financing other ports around the world under the guise of foreign economic help and helping our own manufacturers over here, it just means that my people are less competitive.

Now, there are a lot of people involved in this. If you closed down the port of Tampa, just put a dam across it and said no more ships could come in, 50,000 people would lose their employment overnight. That's a lot of people. That doesn't really include all the back people in Congressman Ireland's district and maybe as far up as Mr. Grant's district. We are a big national asset and the Corps' or the bureaucrats' position over in the Pentagon or the Office of Management and Budget—I can't pin it down—have decided well, if there's any chance of classifying it as a single-user operation, we're not going to have anything to do with it. That's fine. If they'd just adopt the same policy all around the world, I wouldn't complain, but they don't do that.

So I'm here to ask you to reverse that Corps' policy. When God created Tampa Bay, he created a long bay. I've one of the largest estuaries in the United States. It takes 36 miles of channel for a ship to get from the Gulf to the Port of Tampa and very frankly, you have to—the bay itself naturally is only about 20 feet deep. We have to have 43 feet of draft to compete and we can't compete with these silly kind of rules that somebody over there has adopted.

We just ask you to reverse those. You know, I come from a committee where we have to raise money and I know how difficult it is and I don't want to spend a nickel we don't have to spend, but I've got to stay competitive. My district has got to stay competitive for its own employment and we produce more income in taxes out of Tampa Bay than has ever been spent in the history of the whole port development by the Federal Government.

We don't mind doing that. That's part of our privilege, but we can't exist on this kind of policy. I've got two channels that are blocked by this silly policy. One is what we call Port Sutton. It's actually a part of the publicly owned port of my area, not just of the city but of my area and another one is what we call the Alafia Channel. These are used by hundreds of different customers. The goods pass across one dock or two docks, but under the current policy, we just cannot compete. It's going to hurt us.

It's a bad policy. It's a short-range policy and the Chief of Engineers and the Secretary of the Army have intercepted very favorable and cut off very favorable feasibility reports as to the economic and the advantage of deepening these ports.

So that's what I'm here to ask: to set aside that ruling of the court. Thank you, Mr. Chairman.

[Mr. Gibbons' prepared statement follows:]

THE HONORABLE SAM M. GIBBONS' STATEMENT BEFORE THE WATER RESOURCES SUBCOMMITTEE, MARCH 7, 1990

Mr. Chairman, I am testifying today on behalf of the Tampa Port Authority regarding the Corps of Engineers' new single beneficiary policy. As you may be aware, this new policy is being used as a tool to assess the federal interest in a proposed water resource project. Implementation of this new policy at the Tampa Port has impeded improvements to two channels which are integral parts of the overall workings of the Tampa Harbor. The policy could have a similar impact on many other economically viable water resource projects throughout the country.

You may recall the new policy's impact on the Port Sutton Channel deepening project at the Tampa Port. The Secretary of the Army preempted a very favorable report submitted by the Chief of Engineers after three years of study, which highly recommended the improvements as "economically justified, engineeringly feasible, and environmentally acceptable." The Secretary recommended against federal participation in the proposed work due to a determination, using the new single beneficiary policy for guidance, that only one channel user would benefit from the channel deepening. The beneficiary was determined to be one of the terminal operators on the channel, the International Minerals and Chemicals Company. No consideration was given to the number of shippers using the channel that would ultimately benefit, or the potential contribution of the improvement to the overall federal investment at the Tampa Harbor.

Most recently, the Tampa Port Authority has been in contact with the Department regarding a request for federal participation in another channel at the Tampa Harbor, the Alafia Channel. However, the Secretary has preempted the completion of a feasibility study which is expected to provide a strong economic justification, by once again ruling that a single beneficiary situation exists, and consequently that there shall be no federal participation in maintaining the Alafia Channel. Like the Port Sutton Channel, the Alafia Channel connects to the main federal channel.

The Department of the Army's new single beneficiary policy bases a determination of federal participation in a proposed harbor project on the ownership of a terminal on a navigation channel, in lieu of transportation cost savings or even the number of shippers benefiting from the proposed federal improvement. This new policy defines a terminal as a beneficiary of a project improvement, but excludes shippers as potential beneficiaries. As you know, traditional evaluation procedures have recognized that if a terminal serves the shipping needs of several shippers, and the unit cost of a product can be lowered with a more efficient navigation channel, then there is a recognized federal interest.

I believe that the decisions made with respect to the Tampa Harbor projects could very well set a precedent which could impede development of other economically justified water projects throughout the country. The American Association of Port Authorities expressed similar concerns in testimony before your subcommittee on March 1. As you know, the AAPA represents the great majority of public port authorities in this country.

The Interstate Conference on Water Policy (ICWP) has corresponded with members on the Senate Environment and Public Works Committee concerning similar problems with application of the single beneficiary policy to flood control projects.

This new policy is contrary to traditional Corps procedures and is not guided by public law. As you know, the Water Resource Development Acts of 1986 and 1988 did not call for reform in the evaluation procedures of water resource projects.

Mr. Chairman, I believe there is a strong argument against the new single beneficiary policy in that it is contrary to traditional assessment procedures, is not guided by public law, and furthermore, it is a policy which was adopted without the benefit of public review and comment.

I would appreciate it if the committee could review this matter closely, and provide legislative direction within the 1990 water resources development bill that the single beneficiary policy be rendered null and void.

Mr. Nowak. Thank you very much, Congressman. We have had the opportunity to look at this situation and we are joined by Congressman Ireland here today and I wonder if we could take his testimony before we get back to some general questions.

TESTIMONY OF HON. ANDY IRELAND, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA

Mr. Ireland. Thank you, Mr. Chairman, members of the committee. I appreciate the opportunity, and I can do little to improve on the eloquence of my neighboring colleague from Tampa Bay. He is indeed correct that the principal product involved here, as so happens with a situation like this, is generated in the hinterland and I represent the hinterland. The phosphate is actually, for the most part mined in my district.

The policy is absurd, it must have been a case of bureaucratic determination when establishing this single beneficiary policy. The determination was made undoubtedly by someone who has not taken the time or the pains to actually find out how the Port of Tampa works or how the materials are brought in. Indeed, as Congressman Gibbons says, there are many customers who use that single facility even though the facility itself is single ownership. To be unable to understand the economic benefit is difficult for me to comprehend.

Many clients are served by the facility under question, the two facilities that Mr. Gibbons discusses. It is indeed additionally absurd to think that for some $200 million or more, the Federal Government would deepen the channel to 43 feet for 40-miles and then not do the rest of the job so as to maximize the return from that initial investment.

I would urge the members of the committee to listen closely to what the gentleman from Tampa has said and to overturn this policy that no doubt has been promulgated by somebody that didn't take the time to look at what really happens in the real world. I thank you for your indulgence. I have a statement I'd like to slip into your record.

[Mr. Ireland's prepared statement follows:]

STATEMENT OF THE HONORABLE ANDY IRELAND
BEFORE THE
PUBLIC WORKS COMMITTEE SUBCOMMITTEE ON WATER RESOURCES
March 7, 1990

Mr. Chairman, I appear before the Subcommittee today to express my concern about a new Corps of Engineers policy, one which I believe should be closely reviewed by this Committee. I refer to the "single beneficiary policy" which is supplementing the Corps of Engineers' traditional procedures for evaluating the federal interest in a proposed harbor improvement project.

This policy is affecting Tampa Bay which serves the bulk of Florida's phosphate industry. Phosphate fertilizer is produced at the plants within the Tampa Harbor complex. The finished fertilizer product is shipped out by vessel to domestic and international locations. Recognizing the significance of Tampa Harbor to international commerce, in 1970 Congress authorized the deepening of the main ship channel to a depth of 43 feet, extending over a distance of close to 40 miles. Construction work has been completed by the Corps of Engineers.

The federal government is currently maintaining the Alafia Channel at the Tampa Harbor to a depth of 30 feet. In response to the Port Authority's request for federal maintenace of a 34 foot channel, the Secretary of the Army has determined that the proposed improvement would benefit a single, privately-owned terminal. Consequently, in accord with Department policy, he cannot agree to assume responsibility for a deeper channel.

This decision runs parallel with the Department's position regarding federal participation in improvements to the Port Sutton Channel, also located within the Tampa Harbor complex. This project received a very favorable report from the Chief of Engineers who recommended proceeding with the proposed improvements as "economically justified, engineeringly feasible, and environmentally acceptable." Despite this favorable report, the Secretary of the Army, has also recommended against federal participation because of its belief that only one marine terminal would benefit from the deeper channel.

Both of these channels connect directly to the main federal channel and both are key elements in the overall workings of the Tampa Harbor.

With both the Alafia channel and Port Sutton projects, the Secretary was guided by the Department's new "single beneficiary policy." In these cases, a shipper is not defined as a project beneficiary, only a terminal is defined as such. The policy overlooks the fact that the facilities on the Alafia serve numerous customers. It is illogical to require two or more terminals on a channel before there can be federal participation, when in cases such as the Alafia many clients are served through one facility.

In addition, there are compelling reasons for considering each of these channels as simply another branch channel serving the total port navigation system, rather than a channel for the benefit of a single business entity. As I mentioned, the Gardinier Terminal on the Alafia serves a cross-section of the phosphate/fertilizer trade and the product is sold FOB the terminal, is loaded aboard customer chartered vessels, not vessels directly owned or chartered by Gardinier. Likewise raw materials such as sulphur arrive in vessels chartered by the supplier. Improvements to the Alafia channel would obviously result in transportation cost savings to multiple interests within the Tampa Harbor complex.

The "single beneficiary policy" is flawed as it concludes that federal participation in the main ship channel should terminate at the end point where there is a single terminal(beneficiary). It would seem the benefits from the $200 million public investment in the main ship channel would be optimized by linking as many terminals as possible to the federal channel. Instead, the terminals situated on the Alafia and Port Sutton Channels suffer a competitive disadvantage compared to other terminals fortunate enough to be located on the adjacent federal channel.

Mr. Chairman, I request the Subcommittee closely review the Department's single beneficiary policy in light of the situation at Tampa Harbor. As you know, the American Association of Port Authorities is already on record in opposition to the new policy for many of the same concerns I have outlined here today. Adding to my concerns is the fact that the policy has not been afforded the opportunity for public review and comment.

Thank you for your time and that of the Subcommittee's today. I would be happy to answer any questions you might have.

CARGILL

Suite 905
1101 Fifteenth Street N.W.
Washington, D.C. 20005
202/785-3060

May 18, 1990

Ken Kopocis
Assistant Counsel
Subcommittee on Water Resources
Committee on Public Works and Transportation
B-370A Rayburn House Office Building
Washington, D.C. 20515

Dear Mr. Kopocis:

As we discussed on the phone today, here is testimony by Mr. Henk Mathot, president of Gardinier, Inc., to be included in the record of the hearings on this year's water resources development legislation. Gardinier is a subsidiary of Cargill, Inc., my employer.

Please do not hesitate to call if you have any questions or need any further information in connection with our desire to have the Army Corps of Engineers maintain the Alafia River channel at a depth of 34 feet. In addition, I would be pleased to come up to the Hill to discuss this matter with you and your staff at any time.

Yours truly,

W. Brendan Harrington

Statement of

Henk Mathot, President

Gardinier, Inc.
U.S. 41 South & Riverview Drive
Gibsonton, Florida 33534

Submitted to

Subcommittee on Water Resources
Committee on Public Works and Transportation

March 7, 1990

Hearing on Authorizations for the
Water Resources Development Program
of the U.S. Army Corps of Engineers

As president of Gardinier, Inc., I appreciate this opportunity to submit testimony concerning a problem that my company has been having with the channel deepening and maintenance policies of the Army Corps of Engineers. We have been working to resolve this problem with the Corps without satisfaction and, at this time, see no other solution but to turn to Congress for help.

Gardinier produces phosphate fertilizer at its plant adjacent to the Alafia River in East Tampa Bay. The finished fertilizer product is shipped out by customer vessel to domestic and international locations. In addition, the company relies on its dock facilities to supply inputs for fertilizer production.

This phosphate fertilizer plant has been operating at its current location in Gibsonton, Florida, for over 60 years. The plant and its Fort Meade mine employ a total of 650 workers and have a combined payroll of $24 million a year. Gardinier is a wholly owned subsidiary of Cargill, Inc.

Gardinier has been placed at a severe competitive disadvantage because the Army Corps of Engineers lacks authority to maintain Gardinier's river channel, a part of the Tampa port system, at the same depth as channels serving other port facilities in Tampa Bay, Florida. Gardinier respectfully requests that Congress authorize the Corps to maintain the Alafia River channel serving

Gardinier at the depth of 34 feet, consistent with other Bay channels.

While five other phosphate terminals in the Bay area have channels that are maintained by the Corps at a minimum depth of 34 feet, the Corps now maintains the channel for Gardinier's loading facilities on the Alafia River at a depth of only 30 feet. The 30-foot depth restricts the size of vessel that can load and unload at Gardinier's dock, reducing shipping options for Gardinier's customers for their finished fertilizer products.

Customers must load a portion of their cargoes at a second terminal, incurring substantially higher shipping costs, product shrinkage due to the extra handling, and potential demurrage charges in the event other facilities are not free to top off Gardinier customer vessels. In fact, just this past month, a case in point arose.

On February 19, 1990, Gardinier partially loaded a vessel at our Alafia River berth. Because the channel is only 30 feet deep, only 21.3 thousand metric tons of a total 25.1 thousand ton cargo could be loaded at Gardinier due to the draft restriction of the Alafia channel.

The vessel was moved up the bay to the Rockport facility to load the remaining 3.8 thousand metric tons. That was when the fun began.

It took an additional five days to complete the loading of the ship at the Rockport facility. First, CSX, owner of the facility, shut down for a holiday. Next, two vessels that were due later in the week arrived early and preempted our ship. Finally, rain delayed loading of the two early arrivals by yet another 24 hours.

The additional demurrage expense to Gardinier exceeded $36,000. Every dollar of this additional cost was totally avoidable had the Alafia River channel been 34 feet deep. With a 34-foot channel, Gardinier could have completed loading the vessel, and it could have sailed a full five days earlier. The delay cost Gardinier and its customer both time and money.

This is not an isolated occurrence. In fact, as a direct consequence of such delays, Gardinier has lost sales, as customers on occasion have not wanted to suffer the inconvenience and expense of split loadings. In the alternative, customers have extracted lower price concessions from Gardinier to offset this inconvenience.

The Corps of Engineers recently informed Bay facilities that it has been directed by the Office of Management and Budget not to provide maintenance to channel improvements that service single-owner facilities. The Corps has just this winter raised this new requirement to oppose maintaining the Alafia River channel specifically at the new depth that we seek.

We find the Corps' justification for the new requirement completely without merit. The Corps claimed in a letter last fall to Sen. Burdick, chairman of the Senate Committee on Environment and Public Works, that it examines whether a single owner is being served in determining whether a channel project serves the general versus the special interest. The Corps then went on to say, "The existence of only one user at a proposed navigation improvement has traditionally been considered evidence that special or local benefits are involved within the intent of [the River and Harbor Act of 1920]."

Although the Corps itself appears to confuse questions of ownership and use, it stated in its letter to Sen. Burdick that ownership of the lands affected by a particular project provides a "distinct breakpoint" in determining whether the beneficiaries of the project represent too limited an interest to justify federal support. However, the Assistant Secretary himself demonstrates just how arbitrary this position is by noting that "only two entities are required to demonstrate widespread and general benefits."

In other words, because Gardinier had the bad luck to be the only facility on the river, the federal government would turn its back on this plant. Meanwhile, elsewhere in Tampa Bay, those who happen to have neighbors receive all the benefits of federal support.

This arbitrary policy confuses and ignores the real issue in assessing beneficiaries of a federally supported project. The Corps seems to have split out the single-owner concept from the single beneficiary standard it has historically employed.

There is little question, for example, that Gardinier is a multiple user facility.

In the past two years, Gardinier has modernized and improved its port loading system. The expanded dry bulk loadout capacity and sulfur unloading capacity provide competitive options to other Florida phosphate producers. Gardinier only requires 60 percent of the present capacity to ship its own products. The extra 40 percent capacity stands ready for other shippers.

In fact, four other companies have expressed interest in using the company's dry bulk loadout facilities. However, the shallow Alafia River channel operates as a deterrent to such potential shippers, as they are limited in terms of the size of vessel that can be served by Gardinier's facilities.

Gardinier also plans to sell excess capacity in its new sulfur barge, now under construction, to other shippers. However, because all five other molten sulfur vessels in service to Tampa draw over 30 feet when fully loaded, Gardinier's terminal will be less competitive.

Despite the numerous customers that the Gardinier facilities serve and the company's desire to provide loadout services to other users as well, the Corps has maintained that Gardinier's berths constitute a single-beneficiary facility. The Corps argues as a result that it is not authorized to deepen and maintain new depths at channels that serve only one owner, regardless of the number of users who benefit from access to the facility or the benefits that the facility provides to the economy of the State of Florida.

The international phosphate market is intensely competitive. Without a deeper channel, my company will continue to suffer economic loss and inconvenience. Gardinier is a full member of the Tampa Bay shipping and port community. In effect, however, the shallower channel depth is discriminatory against Gardinier and places Gardinier at a serious competitive disadvantage.

Deepening the Alafia River channel would also serve the interests of Tampa Bay shipping generally. Phosphate shipments tend to cluster with orders that track agricultural seasons. Tampa Bay serves the bulk of Florida's large phosphate industry. As a consequence, shippers through Tampa Bay experience annual back-ups in existing facilities, resulting in demurrage charges to the idled vessels. With a deeper channel, the Gardinier facilities would enhance overall port shipping capacity during peak periods by eliminating two-berth loading of larger vessels and being available to others to load vessels during such peak times.

The single-owner directive appears to be driven by someone's false sense of economy at OMB and the Corps of Engineers. In fact, any additional cost of maintaining the Alafia at 34 feet versus 30 feet is virtually unmeasurable. Yet, the benefits are clearly measurable.

Gardinier is prepared to pay for initial dredging costs to 34 feet, and the company requests congressional authorization for the Corps to maintain the channel at that depth. It is not anticipated that maintenance at the new depth will burden the Corps or its budget in any substantial way.

In conclusion, we believe that Congress should reverse the Corps' single-beneficiary rules. The single-owner restriction is being misapplied by the Corps to deny services to facilities that legitimately qualify for those services. The single-owner requirement is only going to cause unreasonable and uneconomic restructuring of facility ownership schemes around the country -- not just in Tampa Bay -- in order to satisfy an arbitrary directive. The single-owner requirement is a new wrinkle that is not justified in statute or in principle.

At a minimum, however, we ask for help from Congress to assure that the federal government maintains the

Alafia River channel in Tampa Bay, Florida, at a minimum depth of 34 feet. This depth is consistent with the depth of channels serving other phosphate loading facilities on the Bay. Moreover, maintenance at this depth will not cost the federal government any additional money.

We very much appreciate the opportunity to submit this statement to the subcommittee. We hope that a solution to the problem I have discussed here can be worked out in the near future.

Mr. Nowak. Without objection, so ordered.

Let me just try to ask a couple of questions relating to—we have an investment in the main channel, it's my understanding, it's over $200 million.

Mr. Gibbons. Unfortunately, you're correct. If we'd a built it when we should have, it would have probably cost about half of that much, maybe even less, but you know the process up here.

Mr. Nowak. The channels that we're talking about are offshoots of that main channel?

Mr. Gibbons. Yes, sir. That's correct.

Mr. Nowak. There's no way to get into the offshoots unless you maintain that $200 million investment.

Mr. Gibbons. We're not asking to dredge the docking space but to get into the docking space. That's the problem.

Mr. Nowak. In their determination here and they talk about a single terminal operator will be the beneficiary, are there other people who are shipping out of that terminal? Is it a multi-use terminal?

Mr. Gibbons. First of all, if you stood there and watched the ships come in and out, the whole world ships in and out of there. There are many, many ships that come and go in my port every day. The cargoes belong to everybody and they serve everyone. You know, it's fun for me to sit here and I know the product that's developed in our area goes on the farms in Mr. Stangeland's area and really all over the world and all over the United States.

So to say it's a single user—everybody uses it.

Mr. Nowak. Just a single one-building terminal owner but other—all kinds of shippers are in and out?

Mr. Gibbons. Everybody uses it, you know. I know what they're driving at but when you sit down and look at it from both ends, there's no logic to it.

Mr. Ireland. If the gentleman would yield.

Mr. Gibbons. Certainly.

Mr. Ireland. The facility that's been built on that finger from the channel is a very expensive facility—so is Tampa International Airport. It's like saying that different air carriers can't use that airport so you'd have to build a separate facility for Delta, and a separate one for U.S. Air, and a separate one for American Airlines.

The policy that's promulgated here directs a very uneconomical use of private funds. It requires the building of an additional facility, that isn't needed, because several different phosphate companies should be able to use the same facility despite single ownership

Mr. Nowak. I would assume that linking as many terminals together from the main ship channel would be cost effective in spreading that cost of the ship channel—which is going to be there anyway—over more opportunities.

Mr. Gibbons. Oftentimes ships sit outside in the Gulf of Mexico because there are no berthings available. The demurrage and all of that that builds up is—those costs are all there. As I say, if we lived in a closed market and nobody was competing against us, I'd say what the heck, we'll survive, but we have worldwide competition for our products and our services and we've got to compete or it would be just like dropping a dam across the front of the bay and say it's all over, fellows, because economically you could drop a dam if your price gets out of line, just as well as putting a physical barrier there.

Mr. NOWAK. Isn't it true that the phosphate competition is really from other countries around the world? Isn't that area of Florida the largest producer in the United States?

Mr. GIBBONS. That's correct.

Mr. NOWAK. There's no other port that is exporting or importing large amounts of phosphate?

Mr. GIBBONS. Well, when God laid down Florida, he laid down the phosphate in what is now Mr. Arlan's district and also some of mine and he put it very close to the water. Phosphate is a product that sells from anywhere from $36 a ton to about $60 a ton on the world market depending on the amount of phosphate concentrate and how it's processed.

So you know, you're moving a product that's got a very high cost as far as shipping is concerned. Shipping is an important part of the phosphate cost, an important part of the competitive picture, but it's just because the phosphate is near the water is the only reason we can compete and water is the essential part of us being able to compete. We don't compete. We lose jobs and the Federal Government loses direct revenue because many of the things that come in from that port.

The ships don't come in empty most of the time. They bring products in. They take products out. Some of them come in empty, but not all of them. We collect a heck of a lot of customs on the things. The Tampa Port more than pays for itself in the customs duties it collects.

Mr. NOWAK. All this phosphate I understand is transported too. You've got unit trains bringing it in from the mines in the middle of the State.

Mr. GIBBONS. Yes, sir. It comes by trains. Some of it's really processed right there where it comes out of the mines. Some of it comes by truck transportation. It comes in various different ways depending upon the loads of the plants and their demand but mainly by trains—unit trains.

Mr. NOWAK. Thank you very much.

Mr. STANGELAND. Just a couple of quick questions.

Obviously, these terminals are being used now. Is the need for deepening the requirement of larger freighters, Sam?

Mr. GIBBONS. The Port Sutton Channel is—you can get right up to the channel and then when you turn your ship into the channel, which is about three quarters of a mile, you suddenly run into shallow water because of this one-terminal type provision that somebody in the Pentagon's adopted, or Office of Management and Budget. It's not any legislative act that I know of.

The Alafia Channel is a little longer than that and their ships cannot go out fully loaded. The ships that call on those different facilities cannot go out fully loaded. They do all right in the regular Federal channel, the one that we spent $200 million on, but you can't get them from that channel to the dockside.

Mr. **Stangeland**. Have you looked at the feasibility or is it not feasible for these two docking areas to become public ownership and therefore qualify?

Mr. **Gibbons**. One of them is in public ownership. The other one just historically has not been. Port Sutton is in public ownership and I guess if the Port Authority had enough money to buy the Alafia Terminal, it would buy it but you know, it hasn't done it. It's just a matter of not being able to raise that amount of capital to own it and operate it.

Mr. **Stangeland**. We'll more than likely after the completion of the members' testimony have the Corps back and we'll certainly bring it up.

Mr. **Gibbons**. I can understand why the Corps did it. It could have knocked out a lot of projects and that'll save money and we're all trying to save money.

Mr. **Stangeland**. What kind of a cost are you looking at for the dredging, the deepening of these two channels overall?

Mr. **Gibbons**. It's not a heck of a lot of money. I couldn't tell you specifically, but it's nothing compared with the $200 million we spent so far. It's peanuts.

Mr. **Ireland**. We're dealing on the margin.

Mr. **Gibbons**. We're dealing on—really—I'm here to protest the policy as much as that. Eventually somebody's going to dig those channels. We can't just let that much waste occur by passing back and forth and don't get the job done. We're all the same taxpayers and we're all the same consumers and we ought to have a uniform policy throughout the United States and draw the line clearly and we ought to do it in legislation instead of letting the bureaucrats, God bless them, make these decisions and then they hide them so we can't really find out who made the decision.

I imagine it came out of the Office of Management and Budget. I imagine it's just a purely budgetary decision because it has not been the policy of the corps for about 30 years that I know of.

Mr. **Stangeland**. We'll look into it, Sam, and see if we can't rectify it.

Mr. **Gibbons**. Good.

Mr. **Grant**. Mr. Chairman, could I ask one question?

Mr. **Nowak**. Yes. Mr. Grant from Florida.

Mr. **Grant**. The issue that you're taking is that it may be okay if there's a true single beneficiary policy but in the case of the Port of Tampa, there's obviously more than one beneficiary of the dredging of those channels.

Mr. **Gibbons**. It's a very narrow definition of a single beneficiary because the phosphate doesn't all belong to one person when it comes out of the ground. It's processed in different places. It goes to different users. It does get funneled through one terminal. Well, in this case, there are about three terminals—a terminal entirely within Mr. Ireland's district. There are a number of terminals in my district and as you know from having been a resident of that area, Mr. Grant, there are environmental things.

We are not seeking to recklessly develop the Bay and to wreak that kind of havoc on it. We're trying to—we don't want to dig channels all over the Bay. We're just trying to kind of limit them to a few channels and get the commerce carried out in the most efficient manner and this bureaucratic decision is very frustrating.

Mr. GRANT. I know what you're trying to do and I support it very much.

Mr. GIBBONS. Thank you.

Mr. NOWAK. Thank you very much for both taking the time to present this in a much clearer way than we've had the information previously. We'll certainly take an in-depth look at this problem.

Mr. GIBBONS. That's all we can ask, sir.

Mr. NOWAK. We'll now turn—the next on our list is Congressman Larry Hopkins from Kentucky.

Congressman Hopkins.

KENTUCKY RIVER

TESTIMONY OF HON. LARRY J. HOPKINS, A REPRESENTATIVE IN CONGRESS FROM THE COMMONWEALTH OF KENTUCKY

Mr. HOPKINS. Mr. Chairman, thank you very much. I'd like to, if I may, read a summary of the text of my testimony this morning and I assume that my full remarks might be entered into the record.

Mr. NOWAK. Without objection, so ordered, Congressman.

Mr. HOPKINS. Mr. Chairman, members of the subcommittee, I appreciate this opportunity to appear before you today to ask for your support for two initiatives of specific concern to my constituents in central Kentucky, and another, which should concern, I believe, every American.

First I ask your support for legislation that I've introduced to prevent the Federal divestiture of locks and dams five through fourteen on the Kentucky River until such time as the provisions of a memorandum of understanding between the Army Corps of Engineers and the Commonwealth of Kentucky setting the terms of that transfer have been fulfilled.

Along with that request, I ask your support for authorization of $3.5 million to complete urgently-needed repairs of locks and dams on the upper portion of the Kentucky River before ownership of the burden of maintenance is transferred to the people of my State.

Third, I would advocate that national water policy be broadened to make the Federal Government a full partner in the crucial effort to develop an adequate water supply for America's future.

Now, to the locks and dams. While the Kentucky River no longer qualifies for continued Federal operation due to lack of commercial traffic, its importance to central Kentucky has never been greater. To protect the interests of all parties involved, divestiture of the locks and dams by the Federal Government must be blocked until the terms of the memorandum of understanding between the courts and the Commonwealth have been fulfilled. Senator Ford and I have introduced companion bills as a first step to carry out this action.

Kentucky is willing to accept the long-standing burden of operation and maintenance but the immediate need to avert failure of some of the dams requires Federal assistance. Authorization of the $3.5 million to allow the corps to perform emergency repairs would represent the prudent stewardship of a valuable installation. It would give added credibility and accountability to future agreements between the corps and other States that will eventually be placed in similar circumstances.

Now, changing the Federal water policy. As I've discussed with you on previous occasions, the Federal policy which treats water supply development as an unnecessary and non-essential Federal activity, in my view, needs to be changed. Civil works policy is fixated on helping those that are inundated with water but fails to take care of those that simply need water to live. Twenty-five Federal agencies collectively provide services to deal with every aspect of water except ensuring an adequate water supply.

Now it's time for Federal participation in the development of water supplies. Regional and State water shortages can no longer be considered a local problem. Inadequate water supplies threaten our Nation's productivity and quality of life. It is, in my view, a national problem. The United States Conference of Mayors has endorsed this legislation, H.R. 1155, to provide Federal support for developing adequate water supplies.

While I know that H.R. 1155 may not contain all the answers, it should be useful as a starting point to resolve this growing national dilemma. Mr. Chairman, I want to take this opportunity to express my appreciation to four members of this subcommittee—Mr. Roe, Mr. Lightfoot, Mr. Pallone and Mr. Cox—who strongly support the concept that is proposed in H.R. 1155 and I appreciate the opportunity to have met with you and thank you for your consideration of the request that I presented here today, Mr. Chairman.

Mr. NOWAK. Thank you very much, Mr. Hopkins. We're going to be looking at your concerns and appreciate your testimony. Certainly on the question of water supply, it's going to be a more prominent, I think, concern for many as we move forward, if not the direct supply, the rehabilitation of existing water supplies in the older areas that have been seen to be in need of complete rehabilitation.

As we move forward with our legislation and clean water act and construction grant program, perhaps there's an initiative we could use to supplement the construction grant as it will now be turned into loan program but also look at and start to consider the water supply as you've been pursuing for several sessions now that I'm aware of.

I think it's something I wish we could move forward with but again, until we get the Administration looking at these kinds of problems in a little broader way and consider the economic development and the full use of the Corps' resources and that's what we're trying to encourage, in some of these other areas as our Nation changes and perhaps the States and the cities could supply themselves with water initially and the corps was busy with other mammoth projects to control floods and control dams in our country, but as that cycle is turning now, we hope we can refocus some of that.

It's going to be difficult but that mission hopefully can be changed to some degree and I think there's much thought- provoking action in pursuing a broader objective realizing the tremendous resources that are contained within that agency.

So we appreciate your continual adherence to that broader perspective and we hope we can implement some of that in this year's water resources bill. As you know, I want to get a bill because this subcommittee went in 1972, 1974 to 1987 really—1986—without a bill and so we want to keep pursuing and keep moving in that direction and we were successful last year to get—two years ago—to get a bill on cycle and we're going to keep it on cycle this year. I hope we can start to achieve some of the things you had mentioned not only in your testimony this year but I think two years ago.

Mr. HOPKINS. Mr. Chairman, I appreciate your concern and your efforts in the past. If I could take just a second with the committee and go back to the locks and dam situation that we have in Kentucky.

About 10 or 12 years ago, the Corps of Engineers came to my office here and informed me that they were no longer going to be responsible for the maintenance and repairs of the locks and dams on the Kentucky River. The corps has been very, very cooperative over the years in trying to work this out to get it from the Federal Government over to the State Government and the law clearly says that unless there is commercial traffic on that river that the Federal Government is not going to be responsible for that maintenance but in 1985, I went with the Secretary of the Army to the Governor's office of the State of Kentucky, whereby they entered into a memorandum of understanding that the Federal Government would turn over all of the locks and dams to the State Government by 1988.

Between 1985 and 1988, we had a change of Administrations in the State of Kentucky. A new governor came on—and I don't say this with any disrespect, it could happen to anybody—but without full knowledge of the situation as far as the river was concerned. With the help of this committee and the cooperation of the corps, Senator Ford and I provided the State of Kentucky one more year before it was to be turned over to the State. In other words, from——

Mr. NOWAK. You said it in a memorandum of understanding?

Mr. HOPKINS. That's correct, from 1988 to 1989. Well, the awkward position that I now find myself in is that my State, just prior to that extension running out, filed suit and their side is saying—the State of Kentucky is saying—that the Federal Government, namely the corps, has not fulfilled their end of the bargain and that is, taking care of the locks and dams. It is now in the courts.

The situation is just this, Mr. Chairman. We have 500,000 people along this river who depend on this river for the existence of their very lives—for drinking water. They are being held hostage while this is being settled in the courts. I happen to believe that the State of Kentucky should be responsible for that.

As a matter of fact, I would rather for the destiny of my constituents in Kentucky, very frankly with all due respect, to be with the people of Kentucky rather than the Federal Government here in Washington, but the fact of the matter is, it is now in the courts and in order to provide a safety valve for these people, I'm asking this committee if they would stop the divestiture so that we can put only $3.5 million—now that's a lot of money to you and me, Mr. Chairman, but not a lot of money by Federal standards—to repair these locks and dams until the courts decide who is going to be responsible for them because I would hate to think that something happened while we were waiting for the courts to decide and we jeopardize the lives of 500,000 people anywhere in this country, wherever that might be.

I happen to believe that the State of Kentucky should be responsible and I think ultimately they will be. The fact of the matter is, the Commonwealth has put this in the courts and I think we have a responsibility to try and protect the lives of these 500,000 people. A bill has been introduced by Senator Ford. It is now part of the water bill in the Senate and I'm asking you to attach the same language that Mr. Ford has attached to the Senate bill to the House bill and I would appreciate your consideration.

Mr. NOWAK. Thank you very much, Congressman Hopkins, for a very articulate statement.

[Mr. Hopkins' prepared statement and H.R. 1155 follows:]

Testimony

Rep. Larry J. Hopkins (R-KY)
before the
Public Works Subcommittee on Water Resources
Washington, D.C.
March 7, 1990

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE:

I APPRECIATE THIS OPPORTUNITY TO APPEAR BEFORE YOU TODAY TO ASK YOUR SUPPORT FOR TWO INITIATIVES OF SPECIFIC CONCERN TO MY CONSTITUENTS IN CENTRAL KENTUCKY AND ANOTHER WHICH SHOULD CONCERN EVERY AMERICAN.

FIRST, I ASK YOUR SUPPORT FOR LEGISLATION I HAVE INTRODUCED TO PREVENT THE FEDERAL DIVESTITURE OF LOCKS AND DAMS 5 THROUGH 14 ON THE KENTUCKY RIVER, UNTIL SUCH TIME AS THE PROVISIONS OF A MEMORANDUM OF UNDERSTANDING BETWEEN THE ARMY CORPS OF ENGINEERS AND THE COMMONWEALTH OF KENTUCKY SETTING THE TERMS OF THAT TRANSFER HAVE BEEN FULFILLED.

ALONG WITH THAT REQUEST, I ASK YOUR SUPPORT FOR AUTHORIZATION OF 3.5 MILLION DOLLARS TO COMPLETE URGENTLY NEEDED REPAIRS OF LOCKS AND DAMS ON THE UPPER PORTION OF THE KENTUCKY RIVER BEFORE OWNERSHIP AND THE BURDEN OF MAINTENANCE IS TRANSFERRED TO THE PEOPLE OF MY STATE.

THIRD, I WOULD ADVOCATE THAT NATIONAL WATER POLICY BE BROADENED TO MAKE THE FEDERAL GOVERNMENT A FULL PARTNER IN THE CRUCIAL EFFORT TO DEVELOP AN ADEQUATE WATER SUPPLY FOR AMERICA'S FUTURE.

KENTUCKY RIVER LOCKS AND DAMS 5 - 14

IN 1985, THE COMMONWEALTH AGREED THAT IT WOULD ASSUME RESPONSIBILITY FOR KENTUCKY RIVER LOCKS AND DAMS 5 THROUGH 14 IF THE CORPS WOULD PERFORM MAJOR MAINTENANCE TO ENSURE THE SYSTEM'S STRUCTURAL INTEGRITY AND OPERATIONAL CAPABILITY.

SOON AFTER THE AGREEMENT KNOWN AS THE MEMORANDUM OF UNDERSTANDING WAS SIGNED, AUTHORIZATION TO DISPOSE OF THE FACILITIES WAS SECURED IN THE 1986 WATER RESOURCES ACT.

STATE OFFICIALS INFORM ME THAT THE AGREEMENT HAS NOT BEEN HONORED AND, UNDERSTANDABLY, THEY DO NOT WANT TO ASSUME THIS LIABILITY. THE STATE HAS FILED A LAWSUIT TO FORCE THE CORPS TO FULFILL ITS OBLIGATIONS.

TO PROTECT THE INTERESTS OF ALL PARTIES INVOLVED, DIVESTITURE OF THE LOCKS AND DAMS BY THE FEDERAL GOVERNMENT MUST BE BLOCKED UNTIL THE TERMS OF THE MEMORANDUM OF UNDERSTANDING BETWEEN THE CORPS AND THE COMMONWEALTH HAVE BEEN FULFILLED. SENATOR FORD AND I HAVE INTRODUCED COMPANION BILLS AS A FIRST STEP TO CARRY OUT THIS ACTION.

WHILE THE KENTUCKY RIVER NO LONGER QUALIFIES FOR CONTINUED FEDERAL OPERATION DUE TO LACK OF COMMERCIAL TRAFFIC, ITS IMPORTANCE TO CENTRAL KENTUCKY HAS NEVER BEEN GREATER.

THE LOCKS AND DAMS SYSTEM HOLDS THE PRIMARY SOURCE OF WATER FOR MORE THAN 500,000 CENTRAL KENTUCKIANS AND 14 COMMUNITIES.

IT HAS BEEN AN INTEGRAL ELEMENT IN THE REGION'S DYNAMIC ECONOMIC GROWTH-- A 2000% GROWTH IN INDUSTRIAL EXPANSION SINCE 1960.

THE BLUEGRASS REGION RANKS 24TH IN THE NATION FOR SMALL BUSINESS GROWTH. AS ONE OF THE FASTEST GROWING AREAS OF THE STATE, ITS POPULATION IS EXPECTED TO INCREASE BY 53% -- ALONG WITH A 15% INCREASE IN WATER CONSUMPTION-- BY THE YEAR 2050.

KENTUCKY IS WILLING TO ACCEPT THE LONG-TERM BURDEN OF OPERATION AND MAINTENANCE BUT THE IMMEDIATE NEED TO AVERT FAILURE OF SOME OF THE DAMS REQUIRES FEDERAL ASSISTANCE.

AUTHORIZATION OF $3.5 MILLION TO ALLOW THE CORPS TO PERFORM EMERGENCY REPAIRS WOULD REPRESENT THE PRUDENT STEWARDSHIP OF A VALUABLE INSTALLATION. IT WOULD GIVE ADDED CREDIBILITY AND ACCOUNTABILITY TO FUTURE AGREEMENTS BETWEEN THE CORPS AND OTHER STATES THAT WILL EVENTUALLY BE PLACED IN SIMILAR CIRCUMSTANCES.

SENATOR FORD'S BILL AND FUNDING AUTHORIZATION HAS ALREADY BEEN INCLUDED IN THE SENATE'S OMNIBUS WATER RESOURCES BILL AND I WOULD GREATLY APPRECIATE THE INCLUSION OF H.R. 3832 AND FUNDING AUTHORIZATION OF $3.5 MILLION IN THE HOUSE VERSION.

CHANGING FEDERAL WATER POLICY

AS I HAVE DISCUSSED WITH YOU ON PREVIOUS OCCASIONS, THE FEDERAL POLICY WHICH TREATS WATER SUPPLY DEVELOPMENT AS AN UNNECESSARY AND NON-ESSENTIAL FEDERAL ACTIVITY MUST BE CHANGED.

CREATION OF ADEQUATE WATER SUPPLIES IS A NECESSARY ENDEAVOR THAT SHOULD BE INCLUDED ALONG WITH THE FLOOD CONTROL AND NAVIGATION EFFORTS THAT YOU HAVE ALREADY AUTHORIZED.

CIVIL WORKS POLICY IS FIXATED ON HELPING THOSE THAT ARE INUNDATED WITH WATER BUT FAILS TO TAKE CARE OF THOSE THAT SIMPLY NEED WATER TO LIVE.

IT IS NEITHER FAIR NOR LOGICAL THAT AGRICULTURE WATER SUPPLY CAN BENEFIT FROM FEDERAL ASSISTANCE BUT DRINKING WATER SUPPLIES ARE DENIED THAT SAME SUPPORT.

NUMEROUS NATIONAL STUDIES INDICATE A NEED FOR ADDITIONAL WATER SUPPLY INVESTMENT.

I AM RELUCTANT TO CITE THESE STATISTICS SINCE THERE ARE THOSE AMONG US WHO ARE GUARDING THE AVAILABLE FUNDS FOR PROJECTS THAT ARE ALREADY ON THE DRAWING BOARD.

BUT THAT MUST NOT PREVENT US FROM RECOGNIZING AND ATTEMPTING TO RESOLVE THE CRITICAL PROBLEM OF INADEQUATE WATER SUPPLY IN MANY COMMUNITIES THROUGHOUT AMERICA.

A 1980 INTERGOVERNMENTAL TASK FORCE REPORT FOUND THAT 756 URBAN AREAS WITH MORE THAN 50,000 PERSONS WILL NEED BETWEEN 75 AND 110 BILLION DOLLARS TO MAINTAIN AND IMPROVE THEIR WATER SYSTEMS IN THE NEXT 20 YEARS.

TOTAL REPLACEMENT AND REHABILITATION NEEDS NATIONWIDE COULD RUN AS HIGH AS $100 BILLION TO $160 BILLION BY THE YEAR 2000 ACCORDING TO A 1980 CONGRESSIONAL BUDGET OFFICE REPORT.

WATER SUPPLY NEEDS ARE ANTICIPATED TO COST $4.5 TO $6.3 BILLION ANNUALLY OVER THE NEXT TWENTY YEARS, ACCORDING TO THE NATIONAL COUNCIL OF PUBLIC WORKS IMPROVEMENT.

ALL OF THE FACTORS THAT DIMINISH WATER SUPPLY HAVE RISEN SHARPLY.

GROUNDWATER CONSTITUTES 50% OF OUR NATION'S DRINKING WATER.

THAT SOURCE IS NOW JEOPARDIZED BY WIDESPREAD POLLUTION.

GROUNDWATER POLLUTION PROBLEMS HAVE BEEN EXACERBATED BY LONG PERIODS OF DEFICIT RAINFALL IN MANY PARTS OF THE COUNTRY THROUGHOUT THE 1980'S.

RECURRING DROUGHT IN THE WEST AND GREAT PLAINS, WHERE LITTLE OR NO PRECIPITATION HAS FALLEN THIS PAST WINTER, LETS US KNOW THE PROBLEM IS STILL AHEAD OF US, NOT BEHIND US.

TO WEATHER TIMES OF DROUGHT IN CENTRAL KENTUCKY, IT HAS BEEN ESTIMATED THAT WE WILL NEED AN ADDITIONAL 4.4 BILLION GALLONS OF WATER STORAGE BY THE YEAR 2000.

INCREASED CONSUMPTION IS AN ELEMENT THAT MUST BE CONSIDERED. AMERICA'S DAILY WATER CONSUMPTION HAS GROWN ALMOST ONE AND A HALF TIMES SINCE 1955.

IN JUST 10 YEARS, THE DEMAND FOR WATER IN CENTRAL KENTUCKY HAS INCREASED BY 18.5%.

THE IMPACT OF GLOBAL CHANGE IS A NEW ELEMENT TO BE FACTORED INTO THIS DISCUSSION. WHILE SCIENTIFIC DATA CONTINUES TO BE COLLECTED, SPECIALISTS REPORT THAT ANTICIPATED EFFECTS INCLUDE MORE SEVERE AND RECURRING DROUGHT AND RISING TEMPERATURES.

PRESENT FEDERAL POLICY DOES NOT HAVE THE FLEXIBILITY TO ADDRESS THESE CHALLENGES.

TWENTY-FIVE FEDERAL AGENCIES COLLECTIVELY PROVIDE SERVICES TO DEAL WITH EVERY ASPECT OF WATER EXCEPT ENSURING AN ADEQUATE WATER SUPPLY.

THE FEDERAL GOVERNMENT PROVIDES SUPPORT FOR:

-- OUTDOOR RECREATION;
-- FLOOD PROTECTION;
-- AGRICULTURE WATER SUPPLY;
-- WETLANDS DEVELOPMENT AND PROTECTION;
-- FISH AND WILDLIFE ENHANCEMENT AND AQUATIC PLANT CONTROL;
-- SHORE AND BEACH EROSION PROTECTION;
-- WATER QUALITY AND DISTRIBUTION;
-- DROUGHT MITIGATION AND CONTINGENCY PLANS;
-- WATER CONSERVATION;
-- GROUNDWATER POLLUTION; AND
-- NAVIGATION IMPROVEMENTS.

NOW, IT IS TIME FOR FEDERAL PARTICIPATION IN THE DEVELOPMENT OF WATER SUPPLIES.

REGIONAL AND STATE WATER SHORTAGES CAN NO LONGER BE CONSIDERED A LOCAL PROBLEM. INADEQUATE WATER SUPPLIES THREATEN OUR NATION'S PRODUCTIVITY AND QUALITY OF LIFE. IT IS A NATIONAL PROBLEM.

THE UNITED STATES CONFERENCE OF MAYORS HAS ENDORSED MY LEGISLATION, H.R. 1155, TO PROVIDE FEDERAL SUPPORT FOR DEVELOPING ADEQUATE WATER SUPPLIES.

WHILE I KNOW THAT H.R. 1155 MAY NOT CONTAIN ALL THE ANSWERS, IT SHOULD BE USEFUL AS A STARTING POINT TO RESOLVE THIS GROWING NATIONAL DILEMMA.

I WANT TO TAKE THIS OPPORTUNITY TO EXPRESS MY APPRECIATION TO FOUR MEMBERS OF THIS SUBCOMMITTEE, MR. ROE, MR. LIGHTFOOT, MR. PALLONE AND MR. COX, WHO STRONGLY SUPPORT THE CONCEPT THAT IS PROPOSED IN H.R. 1155.

I PLEDGE MY FULL SUPPORT TO THIS SUBCOMMITTEE'S EFFORTS TO IMPROVE PRESENT WATER POLICY.

I APPRECIATE THE OPPORTUNITY TO HAVE MET WITH YOU AND THANK YOU FOR YOUR CONSIDERATION OF THE REQUESTS THAT I HAVE PRESENTED TODAY.

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101st CONGRESS
1st Session

H. R. 1155

To amend the Water Resources Development Act of 1986 to provide Federal cost sharing for water supply projects, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

February 28, 1989

Mr. Hopkins (for himself, Mr. Roe, Mr. Whittaker, Mr. Rogers, Mr. Hubbard, Mr. Bunning, Mr. Lightfoot, Mr. Leach of Iowa, Mr. Pallone, Mr. Fuster, and Mr. Rangel) introduced the following bill; which was referred to the Committee on Public Works and Transportation

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A BILL

To amend the Water Resources Development Act of 1986 to provide Federal cost sharing for water supply projects, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. DECLARATION OF POLICY.

Congress declares that there is a national interest in the development of adequate and dependable sources of water for municipal and industrial purposes through Federal funding and other assistance for construction of multipurpose water resource projects which include municipal and industrial water supply as a project purpose.

SEC. 2. COST SHARING.

Section 103(c)(2) of the Water Resources Development Act of 1986 (33 U.S.C. 2213(c)(2)) is amended by striking out "100 percent" and inserting in lieu thereof "35 percent".

SEC. 3. OPERATION AND MAINTENANCE.

The Secretary of the Army, acting through the Chief of Engineers, may enter into agreements with non-Federal interests providing for Federal cost sharing with respect to operation and maintenance of civil works—

(1) the primary functions of which are municipal and industrial water supply, and

(2) which are constructed on or after the date of the enactment of this Act with Federal assistance from the Secretary.

The Federal share of the cost of such operation and maintenance shall be in accordance with section 103(c)(2) of the Water Resources Development Act of 1986.

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Mr. **Nowak**. Let me turn to Mr. Stangeland and Congressman Eckart who joined me today to solve the zebra muscle problem, is also here to express his thoughts on the water resource bill.

Congressman Eckart.

ASHTABULA/SUPERFUND

TESTIMONY OF HON. DENNIS E. ECKART, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OHIO

Mr. **Eckart**. Mr. Chairman, thank you very much. I have a complete statement which will be part of the record, if it pleases the Chair.

Mr. **Nowak**. Without objection, so ordered.

Mr. **Eckart**. Mr. Chairman, I'm here to hopefully expand the authorization for one project, renew the authorization for three and ask you to deauthorize one project and let me briefly touch upon them for you.

The first deals with one of our favorite subjects, Mr. Chairman. You're familiar with a project in Ashtabula, Ohio. The project now estimated to cost somewhere between $24 million and $34 million, provides for the cleaning up of one of the Great Lakes' major toxic hot spots. We have been advised after extensive consultations with Ohio EPA, U.S. EPA, the Corps of Engineers, and a variety of other environmental and other organizations that in order for the cleanup appropriation monies to go forward, we need to expand the authorization to include bank-to-bank cleanup.

The river, which has not been dredged since 1960, is terribly polluted with PCBs and heavy metals. The Buffalo Corps has recommended full and complete cleanup. In fact, Mr. Chairman, I'm pleased to report that the State of Ohio, even before this authorization process has gone forward, has already appropriated $7 million towards that $28 million cleanup meaning of course, that we have to find the $21 million to deal with this.

Mr. Chairman, you are already advancing another piece of legislation, the Great Lakes Environmental Action Program, which would broaden the corps' jurisdiction in this regard, which would also be extremely helpful.

The other projects that I wish to touch on very briefly, the Conneaut Small Boat Harbor, the Fairport Small Boat Harbor, and the Fairport dredging projects, all were originally authorized in the 1966 Rivers, 1965 Flood Control and the 1966 Rivers and Harbors Act, respectively.

Because no action took place over a number of years, Mr. Ghairman, as you know, under the prescriptions of law they have been deauthorized and need a simple reauthorization because in each of those circumstances, significant economic developments in the last three or four years, as we all see, a tremendous rebirth in the Great Lakes is taking place there.

As to the deauthorization, Mr. Chairman, as you and Mr. Stangeland remember well, we used to have extensive commercial fishing fleets in Lake Erie. They don't exist there anymore and for many years, a particular channel was maintained for the commercial fishing fleet in Conneaut, Ohio. It does not exist anymore. A small marina was built near there and now they want to add to that marina. I point out that that marina was sold out weeks before it was even opened and in order for Phase Two of the marina project to go forward, we need to deauthorize this now currently unused channel in order for the construction to proceed.

Mr. Chairman, we have provided the details of all of these projects to your staff at some more length than I have gone into them before you this morning. I'm grateful for the help you've given to my district in the past and I guess I'm prepared to promise you that these are all the things I see on my radar scope for the foreseeable future. I know it's unusual to come in and speak about five special projects but if it's of any value to you, I promise not to be back until the next time you do this.

Mr. **Nowak**. Well, we welcome everybody back in the next two-year cycle, but I appreciate the detail in which you presented the committee with the projects you feel are a priority in your area and certainly the economic development aspects of these would also be enormous if once we move forward and started to implement all of the work that is being requested here.

I think you have projects that would really move some economic development into your area which I understand is not only in much need of a catalyst but would bring a lot of private development with it and of course that's what we're trying to pursue in many of these initiatives which we'll include in our water resource bill when we move forward with this legislation later in the summer and I appreciate your input.

Congressman Stangeland.

Mr. **Stangeland**. Thank you, Mr. Chairman.

Just very quickly, on the Ashtabula project——

Mr. **Eckart**. Yes, sir.

Mr. **Stangeland**. Is that a project that's cleared environmentally as far as the dredging process with the heavy metals and all containment going into the lake? Is there no problem with that?

Mr. **Eckart**. No, sir. The coring and testing for toxic materials is going on right now which is being paid for by the private industries of Ashtabula. They have a site selected for the land disposal of the dredgings. It will not be open dumping at all.

Mr. **Stangeland**. Is this not a project that might be funded out of Superfund?

Mr. **Eckart**. One of the reasons that the river is contaminated is that there was a brook—Field's Brook, in to which folks dumped their pollution which ended up in the river. That is a Superfund site. That is on track and all of that from the riverbank up, is being paid for by Superfund.

Mr. **Stangeland**. Then very quickly on the three projects for reauthorization, are these projects that would be deauthorized under the policy of "no funds expended over a period of time," so they would come up for automatic deauthorization?

Mr. **Eckart**. That's correct, sir. Yes, sir. There are no appropriations connected with these. All of these three that will be reauthorized are going to be developed as a result of other private developments, but you all got to say it's okay to do them.

Mr. **Stangeland**. Okay. There is no authorization monies in the reauthorization?

Mr. **Eckart**. That's correct. Yes, sir.

Mr. STANGELAND. Are there carryover authorization monies or no?

Mr. ECKART. No. There are none. We need you all to say go ahead.

Mr. STANGELAND. Did I hear you say that if we do this, you promise not to come back next time?

Mr. ECKART. For at least two years. Yes, sir.

Mr. STANGELAND. Thank you.

Mr. ECKART. Thank you very much.

Mr. NOWAK. Thank you very much, Congressman.

Mr. ECKART. Thank you very much, Mr. Nowak.

[Mr. Eckart's prepared statement follows:]

TESTIMONY OF THE HONORABLE DENNIS E. ECKART
BEFORE THE SUBCOMMITTEE ON WATER RESOURCES
MARCH 7, 1990

I thank the members of the Water Resources Subcommittee for the opportunity to testify today about several projects within my congressional district in Ohio. First[illegible] and foremost, I am here to request that in your Subcommittee's continuing efforts to reauthorize the Water Resources Development Act, you expand the authorization of an important project in my district. Specifically, I ask the Subcommittee to authorize the cleanup of the Ashtabula River and to expand the federally authorized navigational channel in the river to include the banks and the dredging of the channel to 18 feet.

The Ashtabula River, which empties into Lake Erie, is choked with sediments and toxic materials that have accumulated since the 1960's, when the Corps of Engineers (Corps) last dredged the river. River depths presently range from 0 to approximately 28 feet as a result of sediment buildup and excessive shoaling over the past 25 years. Boats are stranded, and the economy of the city of Ashtabula, which relies heavily on the boating industry, is paralyzed.

The recreational boating and tourism industry has revived this once heavily industrial community by providing more jobs and productivity to the area than any other industry in the past twenty years. More than $6 million in private funds have been invested in the development of the shoreline and the greatest natural resource this area hosts -- the Ashtabula River and Harbor. Yet now, due to the low water levels of the Great Lakes and the accumulation of silt at the bottom of the river, many boats are stranded along the river with no access to Lake Erie. All the private investment that has been poured into this area will be in jeopardy if the river and harbor are not navigable.

Unfortunately, the proposed dredging project is complicated by the fact that the sediments found at the bottom of the river are contaminated with a variety of pollutants, and thus may only be disposed after the Corps has attained compliance with all applicable environmental laws and regulations. The Corps is coordinating with the United States Environmental Protection Agency (USEPA) to fulfill those compliance requirements, although the Corps continues to maintain that it's national mandate does not include the dredging or cleaning up of toxic and contaminated sediments. Approximately 300,000 cubic yards of the sediment to be dredged is considered heavily polluted with heavy metals and synthetic organic compounds. About 200,000 cubic yards of the sediment is considered toxic because of the presence of polychlorinated biphenyls (PCBs) at concentrations in excess of 50 parts per million. The Ashtabula River has been cited as an "area of concern" by the International Joint Commission.

A conflict of views exists within the Corps of Engineers.

The Buffalo District wants to completely dredge the channel (1.4 miles), including all contaminated sediments. The projected cost of this complete clean-up is approximately $28 million. Washington Headquarters, however, would rather minimize the cost by dredging only to the recreational navigational level of 8 feet, an alternative which would result in a portion of the toxic sediments remaining in the river, thus creating a potentially dangerous and environmentally threatening situation.

The Buffalo District stated in its November, 1988 Summary Report, "Dredging of the Ashtabula River":

> **"After many years of study, substantial expenditures, and finalization of an approved plan of action including a Final Environmental Impact Statement, it appears unreasonable not to implement the total clean-up and thereby serve the Ashtabula constituents. It's not a question of whether this clean-up is needed or not; it's more of a question which Government agency should pay for the work. While Government agencies debate authorities and cost sharing, the people of Ashtabula continue to live with this problem in their backyard. The Corps has the chance and opportunity to solve this long-standing problem and has gone on record as being concerned and committed to resolving it. We have local, congressional and USEPA's support. If we fail to act, the future prospect of some other agency resolving this problem is dim. This quite possibly could be the last hope the people in Ashtabula have of getting this toxic material cleaned up. Therefore, the Buffalo District recommends that funds be allocated which will allow us to implement the total clean-up plan."** (emphasis added)
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> (U.S. Corps of Engineers, Buffalo District, Ashtabula Dredging and Confined Disposal, Summer Report, Dredging of Ashtabula River, November, 1988, page 9.)

On March 15, 1989, I held a meeting in Washington, D.C. to discuss the Ashtabula River dredging project. Representatives from the USEPA, Ohio EPA, the U.S. Corps of Engineers Headquarters, the Corps of Engineers, Buffalo District, and the Ashtabula Remedial Action Plan Council attended the meeting. The meeting established a consensus that a complete cleanup of the area is necessary, but the question of funding and agency responsibility was not resolved. The Corps Headquarters continues to maintain that its primary responsibility is maintaining navigational channels and that the responsibility for removal and disposal of toxic sediments lies more properly with the USEPA.

I realize the tight budget within which the Corps of Engineers operates, but the hazards the toxic sediments present if left in place must also be recognized. To mobilize efforts to remove the sediments, I and a group of concerned Ohio officials and private citizens are seeking to organize a public/private venture to raise funds for the total clean-up of the Ashtabula River. A group of local industries has volunteered to run extensive tests throughout the river's bottom and banks to determine the exact location, composition, quantity and density of the toxic components within the river's sediments. The tests are expected to conclude this spring with a final analysis of the river's toxicity levels around June, 1990.

The State of Ohio has committed to allocating $7 million in state funds to the Ashtabula River dredging project over the next two years, which is unprecedented in the state's history. I will continue to seek the appropriation of the $18-20 million in federal funds needed to complete the project, but I very much need your help during the authorization process.

I have been informed by the appropriations committee that in order to obtain further funds for the Ashtabula River cleanup, that the entire cleanup must be authorized and the Corps of Engineers must be authorized by Congress to handle toxic materials. In light of this situation, I would also like to endorse an idea that you have been examining that would place more environmental remediation authority in the hands of the Corps.

In addition to the Ashtabula River cleanup authorization, I would also like to speak today on four other small projects in my district. Three of these projects need a simple reauthorization and one needs a deauthorization.

Reauthorizations

Conneaut Small Boat Harbor: The Conneaut Port Authority believes that the discontinuation of this project would adversely affect the ongoing development of Conneaut and its harbor. The continuing development of the area is contingent upon renewed congressional support for this project. The project would create a recreational small boat harbor through the construction of stone dikes and breakwaters. Originally authorized in the 1966 Rivers and Harbors Act.

Fairport Small Boat Harbor Project: The reauthorization of this project is also essential to encourage further economic growth around the harbor. This project would authorize the construction of several breakwaters and revetments for the small boat harbors, including the dredging of the approach channels leading to the harbor. Originally authorized May, 1977 under Section 201 of the 1965 Flood Control Act.

Fairport Dredging Project: This project is related to the small boat harbor project in Fairport. It would provide for the deepening of channels to depths of 29 feet in the approach to the harbor, 28 feet in the outer harbor, 27 and 28 feet in the Grand River and 21 feet in the enlarged turning basin. Originally authorized in the 1960 Rivers and Harbors Act.

Deauthorization

Harbornorth Marina: The Harbornorth Marina, located in Conneaut, Ohio, is seeking to initiate the second development phase of its marina in the Conneaut Harbor. Phase II would construct a breakwall to protect recreational boats moored in the proposed new small boat marina, which will provide additional dockage for approximately 550 boats. However, construction for this breakwater has been delayed because the breakwater's location will require the abandonment of the easterly portion of the federal access channel leading to the public dock.

Many years ago, this channel was maintained for the commercial fishing fleet that docked in a section of what is now phase I of the marina, but that fleet is no longer existent and the channel has not been maintained for many years. The marina wants to deauthorize this federally-authorized channel and has filed an application with the Corps of Engineers. They need federal legislation to deauthorize and abandon this channel.

Thank you again for the opportunity to testify today, and I look forward to working with you on these matters throughout the reauthorization process.

Mr. Nowak. Let us turn now to our friend Mr. Olin from Virginia, who has other witnesses to introduce.

Congressman Olin.

BUENA VISTA, VA

TESTIMONY OF HON. JIM OLIN, A REPRESENTATIVE IN CONGRESS FROM THE COMMONWEALTH OF VIRGINIA, ACCOMPANIED BY HAROLD KIDD, MAYOR OF BUENA VISTA; CLAY GOODMAN, CITY MANAGER; AND WILFORD RAMSEY, CITY COUNCILMAN

Mr. Olin. Thank you very much, Mr. Chairman.

I really appreciate your willingness to let us appear before you today. I'm here to ask this committee for an authorization of $53 million to construct a flood wall to protect the city of Buena Vista, Virginia, which is located in my district. I've got with me today Mayor Harold Kidd on my left, the mayor of the city, the City Manager on the end, Clay Goodman, and my good friend Wilford Ramsey who's a city councilman.

These gentlemen are here not to give lengthy testimony but to help answer questions, but they're really here to show the interest they have in this project because the future of their city depends upon the successful conclusion of this project. I'll be talking a little bit about that.

This city of Buena Vista is a very small city. It's got 6,700 people. It's been severely damaged by major floods in recent years. The first one was in 1936 and then starting in the 1960s, for the past 20 years, we've had three bad floods—1969, 1971 and 1985. Let me show you a picture here of the city. It might be a little hard for you to see. Here's the river that makes a big bend. This is the Maury River. It comes down from the Alleghany Mountains that are over to the west of here. Finally, it runs into the James River, goes on to Lynchburg and Richmond and then into the Chesapeake Bay.

This city sits right between the river and the Blue Ridge. The Blue Ridge Parkway runs along here and this shows the most recent flood in 1985. This is the channel of the river and you see the area right along the river, it's used for industrial and the main part of the city is here. You can see the degree of the flooding.

I would like to, Mr. Chairman, with your permission, show you a very brief, for a couple of minutes, a video film of this last flood. Then I'll tell you a little bit more about the problem the city has.

[Video shown.]

Mr. Olin. This video shows the downtown section of Buena Vista which sits right along the river. These shots were taken by some local townspeople. There you can see the level of the water in the main business district, covered most of the first floor. This flood happened on November 5, 1985. It turned out to be election day that day, also. We had my entire Congressional district under water. This city took about as big a beating as any other single area.

Mr. Chairman, as a result of this flood, the city, which has a total labor force of 3,300 roughly, lost 500 jobs. Businesses along the river—two of them decided to go out of business and this put them in a position where in Virginia, the unemployment rate is about 4 percent. For that city, it's 12.4 percent and we're now five years—we'll go into the fifth year after the flood.

We've got two industries that have left. We have two or three others who have indicated that if we don't do something about this flood situation, they are going to leave and it's very clear that we've got somewhere in the neighborhood of a thousand jobs, that if we don't get this flood protection in, are not going to exist. If we get the flood protection in, we're going to get the jobs back and we're going to be able to see some growth.

Let me give you a little background of what the history of this project is with the Corps of Engineers. The city was first studied as part of the James River Basin Study back in 1964 and then following the flood in August of 1969, the Corps of Engineers was directed to expedite its report regarding what could be done regarding Buena Vista.

In the Water Resources Development Act of 1974, Congress authorized $665,000 to complete the advanced engineering and study of the flood problems there and that study was complete in 1976. They recommended a flood control project to protect the residential, commercial and industrial part of the city. Unfortunately, at that time, the people in the city saw the tremendous cost of this project and they were reluctant to take it on and the project was not constructed. The city did not support the project. They figured these floods were 100-year floods and they wouldn't happen maybe for a long time. Well, they got another one in November of 1985, the most devastating one of all of them and right after that, the City of Buena Vista asked the Corps of Engineers to come back and revisit that study which they did. They worked on the prior authorizations. We have not come before this committee before with regard to an authorization. They're operating on the funds and the prior authorization.

By March of 1988, the preliminary plan was complete. The Buena Vista City Council unanimously approved going ahead with the levee flood wall covering the whole length of the city and protecting that city on the basis of the calculated 115-year flood. For fiscal year 1989, the Congress appropriated another $300,000 and in 1990, this year, another $150,000 to complete the feasibility study. The President has in his budget for fiscal year 1991, $600,000 to start preconstruction engineering.

We're in a position right now where the corps has decided what it wants to do. It totally supports the project. In fact, the work has gone far enough now so that Lieutenant General Henry Hatch, who is the corps' chief engineer, says that he is proceeding expeditiously to prepare the chief's report and we have his commitment that that report will be available in June of this year and I expect it will be.

Mr. Chairman, we're at the point where the corps will not go further past this point unless they get a complete authorization for the project. The project is expected to be a $53 million project. It needs to be in the authorization of water resources development that your committee is working on. We hope you can have a bill and that this project can go in and be authorized. If we don't do that, we'd be subject to a couple of years delay at least and the corps has indicated that in that event they will put the thing on the back burner, keep it alive but they won't advance it.

This city needs to get this done as quickly as possible. The city, as you know, is going to have to—locally—they're going to have to come up with 25 percent of the money. That's $13 million. For this little city, that is one heck of a job. To get prepared for that, the city has done a number of things. They've upped their automobile decals by 50 percent. They've raised the sewer and water rates by 65 percent. They've raised the real estate tax by 10 percent. They've put in a new food and lodging tax dedicated to the flood. They have committed revenue from a cogen plant that's going to be put in that city very shortly—all the tax revenue. They've raise $1 million from local businesses to be paid over 15 years to try to come up with their share.

They're at the position now where they can see their way clear to providing city funds of about $5.4 million. Recognizing the problem, we've approached the Commonwealth of Virginia. Virginia has never put State money into a water project up to now. We asked them in the last General Assembly in 1988 for help. They committed help. The State set up a revolving fund for the first time but they're only talking about for the whole State maybe $1 million a year.

In the current General Assembly which is meeting currently—they'll be finishing their business on Friday—they have reauthorized the Governor to appropriate $525,000 from his reserve fund which is a sizeable fund, toward this project. The Governor has agreed to do that. So that's about where we stand. We're finding that getting additional help out of the State of this magnitude is very hard to come by and we have been unable to get enough commitments at this point, although we've got enough cooperation so that the corps has maintained its confidence in the project and is continuing to work.

As you know, when the Congress passed the Water Resources Act of 1986, they changed the cost-sharing scheme from 5 percent local share to a 25 percent. At the same time, I believe that the Corps of Engineers was authorized in some hardship cases to implement an ability-to-pay regulation. This project does not qualify under their rules because the rules relate to economic health of counties, not of cities.

In Virginia, the cities are independent of the counties and to try to exercise this discretionary authority the corps has isn't—it isn't possible for them to deal with a city that's separate from a county. So I'm also asking this committee if you could see your way clear to put a cap on this project of $6 million which represents the maximum amount of bonding that this city can afford, $5.4 million, plus the approximate $600,000 that we've got available from the State.

I think that this is consistent with the spirit of the provision that was put in the 1986 Act and it would be appropriate for the Federal Government to do this. Both Virginia Senators—Senator Warner, Senator Robb—will be asking for the same consideration of the Senate committees.

Mr. Chairman, I urge you to include an authorization for this project in your bill and to act favorably on the cap if you can see fit to do that and with that, I'd be very happy to respond to questions.

Mr. **Nowak**. The project description, I think was very well and very vividly shown. The problem that you articulated concerning the local share is where your problem's going to be and I'm wondering if the State, when that 25 percent, that was supposed to be the floor that we considered nationally and yet when we adopted that, I well knew that there were going to be times when towns and villages could produce a benefit-cost ratio on a project but could not produce the local share.

Mr. **Olin**. That's what we're dealing with here.

Mr. **Nowak**. I'm sure we'll have other requests like this as we go through the hearings over the next several months. We've tried, encouraged the local communities to look at this as just not pure flood control for existing industries but really economic development for a whole section or area of a State and I know you've made the argument to the State and they responded.

Mr. **Olin**. Well, they responded partially, I'd say.

Mr. **Nowak**. Well, on the low partial side, I would think, with the amount of money that they've committed. Yet, it is in their interest as well to preserve this community which makes up—if you look at a mosaic—a very important piece of the State. If you had a turn down here in economic activity, that spreads to the rest of the State to some degree either through unemployment comp or other welfare, social benefits that have to be paid and in the long run, the State does have a total loss.

I guess the point I'm trying to make is they have an economic, a direct interest and I would hope all of those efforts are made because I think others are turning, and in the same dilemma you are, looking to the State and most of the other States I'm aware of are responding with either a loan but a coverage so that that project can move forward even if it's at the 20—the lowest end of the 25 percent level.

Mr. **Olin**. We're well aware of those arguments and we have used them and I guess the basis for my request is the feeling there have been some cases where the caps have been applied and I'm just asking that for consideration. I don't know to what extent that gives you a problem. I expect it could.

In any event, I would hope that the committee can look favorably on authorization of the project. Some way, we're going to find a way of getting this project done. I can tell you that. We're going to get the project done but we can't get it done if it's not authorized.

Mr. **Nowak**. Congressman Stangeland.

Mr. **Stangeland**. Thank you.

Just one. I think you've got a typo that you may want to correct in your statement.

Mr. **Olin**. Oh, what's that?

Mr. **Stangeland**. When you say "Buena Vista simply cannot afford to pay more than $13 million" at one point. You may want to strike out the "more than" and just say, "pay 13 million."

Mr. **Olin**. Yes, they can't afford——

Mr. **Stangeland**. I thought you were here arguing for a quarter of a million instead of seven and a quarter?

Mr. Olin. No, I'm sorry. If the committee could correct that in the official record, I would appreciate it.

Mr. Stangeland. We certainly want to review this, Jim. When we have the new cost-sharing policy, I think the Chairman and I both recognized that there were projects that would be denied because communities just absolutely couldn't afford to come up with their share and we'll take and review this with the corps. I'm somewhat disappointed at the corps' very stringent requirements for poor communities to qualify and we'll take a very careful look at it.

Mr. Olin. If they have more leeway than they're indicating, that would be helpful.

Mr. Stangeland. We think there should be because as the initial cost-sharing proposal was presented to us, the poor communities that needed protection—as much or more than wealthy communities—just weren't going to get it and we realize that there are communities that can't raise the revenue, can't raise their share, and we want to take a look and see if there's some adjustment we can make for you. I'm not certain that we can give you the full $6 million at this point in time. We can't commit to that but we'll certainly look carefully at it.

Mr. Olin. I would appreciate that. The 5.4 I'm talking about is the legal limit of the bonding authority at this point.

Mr. Stangeland. You mentioned that you're being penalized to a certain extent because of the county's financial situation. I realize that cities and counties in Virginia are separate but the county can bear some responsibility because they skewer the figures to the detriment of Buena Vista.

Mr. Olin. We're working on that. The corps told us that they have to evaluate the economic strength of the whole county in order to measure a project. They say that, well, the county is economically strong enough to handle this project but they are separate municipalities. It's giving us a problem. We're not walking away from that problem.

Mr. Stangeland. No, no. Not at all.

Mr. Olin. In the position we're in, we have got to find—we have got to tap and try for every source that we can think of because this city will depend upon this thing being done. It needs to be done on schedule. It can go to construction in 1992 if we keep it moving.

Any help you can give will be much appreciated.

Mr. Stangeland. We'll do the best we can.

Thank you very much for the information. We will certainly be looking forward to it and we'll be back in touch with you as we start those negotiations with the corps.

Mr. Olin. Okay, fine. Thanks a lot.

[Mr. Olin's prepared statement follows:]

TESTIMONY OF CONGRESSMAN JIM OLIN
BEFORE PUBLIC WORKS AND TRANSPORTATION
SUBCOMMITTEE ON WATER RESOURCES
WEDNESDAY, MARCH 7, 1990

Mr. Chairman, I appreciate the opportunity to appear before you today. I am here to ask this committee to authorize $53 million to construct a floodwall to protect the city of Buena Vista, Virginia, located in my district. I have with me today the mayor of Buena Vista, Harold Kidd, the city manager, Clay Goodman, and city councilman Wilford Ramsey.

The city of Buena Vista, whose population is 6,717, has been severely damaged by major floods - the first one was in 1936 and three have been in the past 20 years - in 1969, 1972 and 1985. The devastating flood of 1985 caused damages in excess of $50 million and two industries have abandoned operations in Buena Vista, resulting in a loss of more than 500 jobs. In a city whose total labor force is just over 3,350, that means 15 percent of the labor force has been impacted by these plant closings! The Commonwealth of Virginia currently has an unemployment rate of 4 percent but Buena Vista's unemployment is 12.4 percent. This is directly attributable to the loss of jobs after the flood.

As I said, two industries left town right after the 1985 flood. The president of another industry, which employs approximately 120 people and has an annual payroll in excess of $3.5 million, has expressed fear that another flood would jeopardize its operations. Unless companies currently based in Buena Vista are confident of flood control, they will not expand and may follow other companies out of the city. In addition, companies who might otherwise consider locating in Buena Vista, will be reluctant to do so unless flood protection is guaranteed. Without flood protection for Buena Vista, the economy of the entire Rockbridge County area will suffer a serious blow, as more than half of the workers in Buena Vista's industries live outside the city.

Buena Vista was originally included in the James River Basin Study authorized by Congress in the summer of 1964. Following the August, 1969 flood, the Corps of Engineers was directed to expedite its report for Buena Vista. In the Water Resources Development Act of 1974, Congress authorized $665,000 to complete an advanced engineering and design study of the flood problems at Buena Vista. This was completed by the Corps in 1976.

This study recommended the construction of a flood control project at Buena Vista to protect the residential, commercial and industrial developments within the city. Unfortunately, the project was not constructed at that time.

Following the flood in November, 1985 - the most devastating in the city's history - the city of Buena Vista requested that the Corps of Engineers re-evaluate the flood problem and update the previous study. In March of 1988, the Buena Vista City Council unanimously approved a levee/floodwall/channelization plan presented by the Corps that will protect the city from a 115-year flood.

Currently, the total project cost is estimated at $53 million, with the city responsible for $13.25 million.

The city and the Corps have agreed that this situation has reached crisis proportions and believe it is urgent to push this project forward. In a letter dated February 23, 1990, Lieutenant General Henry Hatch, the

Corps' Chief Engineer, states, "...the Corps of Engineers is committed to processing this report in an expeditious manner."

We expect to have a Chief's Report ready by June of this year so this project can be authorized this year.

I wish that was all I had to ask for but, there is a complication. Unlike larger cities in Virginia which were also affected by the floods, Buena Vista simply cannot afford to pay more than $13 million for flood protection!

Buena Vista is one of Virginia's most economically distressed communities. Because of flood related expenses and capital expenditures which resulted from the flooding, Buena Vista has operated deficits for years and has not had a positive fund balance since 1980.

The city has made difficult, but necessary, decisions to keep the city afloat financially. The cost of auto decals has been increased by 50 percent, the rates on user fees for water and sewer have been increased approximately 65 percent, the real estate tax rate has been increased 12 cents, and a new food and lodging tax was adopted.

The city has implemented strict cost containment policies and increased taxes to make as much money available for flood control as possible. Local businesses have made commitments to assist with the financing of flood control. The city has designated several funds for debt service on a bond which will be used for non-federal share of the flood protection project. But, in spite of these extraordinary efforts, the most the city can afford is $5.4 million. Obviously, that falls way short of $13 million.

So, the city turned to the Commonwealth of Virginia for help and the Commonwealth responded. Virginia's biennial budget for fiscal years 1990-

1992 includes language that authorizes the governor to release $525,000 to help Buena Vista pay its share of the project. The governor has agreed to do this if federal funds are appropriated for this project. In fiscal years 1989 and 1990, federal funds were appropriated and the President's budget for fiscal year 1991 includes $600,000 for this project.

We will leave no stone unturned in making this project work because the city's very existence is at risk. One more flood will wipe out the city physically and financially.

When Congress passed the Water Resources Development Act of 1986, establishing the new cost-sharing provisions, and the Corps of Engineers implemented ability-to-pay regulations, I do not believe it was the intent to prevent desperate cities from being able to afford flood protection.

So, I'm asking this committee to cap the non-federal share of this project at $6 million. Buena Vista has made extraordinary efforts to protect its citizens but they just can't meet existing cost-sharing requirements. I believe the federal government also has an obligation to make an extraordinary effort to help cities like Buena Vista.

Senator Warner and Senator Robb agree that Buena Vista needs special consideration and will be making the same appeal in the Senate. I urge you to give very serious consideration to this request.

Mr. Nowak. Thank you.

Our next witness is Congressman Thomas Carper from Delaware. Mr. Carper, we'll have you introduce anybody that you'd like to and invite anybody to the table as you so desire.

DELMARVA PENINSULA, DE

TESTIMONY OF HON. THOMAS R. CARPER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF DELAWARE, ACCOMPANIED BY KERMIT JUSTICE, SECRETARY, DELAWARE DEPARTMENT OF TRANSPORTATION; AND JOHN DAVIS, DIRECTOR OF HIGHWAYS, DELAWARE DEPARTMENT OF TRANSPORTATION

Mr. Carper. Thank you, Mr. Chairman and members of the subcommittee. We appreciate very much this opportunity to join you this afternoon. Let me introduce, if I could—on my right, is Secretary of Transportation for the State of Delaware, Kermit Justice, who has served as our Secretary of Transportation now, 11 years. That's a record for our State. I don't know if it's a record for any State but it certainly is for Delaware. Kermit, in addition to being our Secretary of Transportation, also serves as the president of the American State Highway and Transportation Officials. To my left is John Davis. John is the director of highways for the State of Delaware and essentially serves as our chief engineer in the Department of Transportation.

Frank Perdue, the chairman of Perdue Poultry Industries, had expected to join us this morning. He has unfortunately a stomach virus and we would hope that at some point in the next several weeks when he's in town that we could have a chance for him to visit informally with the Chairman, ranking Member of the committee and other Members who might wish to chat with him.

Mr. Nowak. I can't resist. I'm glad he's got it instead of the chickens. [Laughter.]

[Prepared statement of Frank Perdue follows:]

TESTIMONY OF MR. FRANK PERDUE
CHAIRMAN, PERDUE FARMS INCORPORATED
before the
SUBCOMMITTEE ON WATER RESOURCES
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
March 7, 1990

MR. CHAIRMAN, THANK YOU FOR THE OPPORTUNITY TO SPEAK BEFORE YOUR SUBCOMMITTEE THIS MORNING ON A SUBJECT THAT STRIKES FEAR — AND A FAIR AMOUNT OF ANGER -- IN THE HEARTS OF BUSINESS PEOPLE THROUGHOUT THE TRI-STATE DELMARVA PENINSULA: THE ST. GEORGE'S BRIDGE IN DELAWARE. I AM FRANK PERDUE, CHAIRMAN OF PERDUE FARMS INCOPRORATED HEADQUARTERED IN SALISBURY, MARYLAND, WHICH IS SEVEN MILES SOUTH OF THE DELAWARE STATE LINE.

MR. CHAIRMAN, CONGRESSMAN CARPER AND SECRETARY JUSTICE CAN TELL YOU WHY THE U.S. GOVERNMENT SHOULD PAY FOR A NEW BRIDGE BECAUSE OF ITS LEGAL OBLIGATIONS AND BECAUSE THE FEDERALLY-OWNED CANAL CUTS DELAWARE IN HALF. I'M HERE TO TELL YOU THAT IT'S NOT JUST DELAWARE THAT NEEDS THIS NEW BRIDGE. THE ECONOMY OF AN ENTIRE REGION DEPENDS ON IT.

U.S. ROUTE 13 IS A LIFELINE TO THE ECONOMY OF THE DELMARVA PENINSULA. IT IS THE MAJOR HIGHWAY THAT CONNECTS US WITH THE LARGE CITIES OF THE NORTHEAST. WHEN WE SHIP OUR CHICKENS TO YOUR HOME STATE OF NEW YORK, WE SHIP THEM NORTH ON ROUTE 13. THE SAME CAN BE SAID FOR ALMOST EVERY OTHER BUSINESS THAT TRUCKS THEIR PRODUCTS OFF THE PENINSULA TO NORTHERN MARKETS.

NO ONE DISAGREES THAT THE ROUTE 13 CORRIDOR IS CURRENTLY OVERUSED. THE ST. GEORGE'S BRIDGE CARRIES OVER 60% OF THE TRAFFIC OVER THE C&D CANAL WITH AS MUCH PER-LANE TRAFFIC AS THE CHESAPEAKE BAY BRIDGE AT ANNAPOLIS. 37,000 VEHICLES CROSS THE ST. GEORGE'S BRIDGE ON AN AVERAGE DAY. SEVENTEEN PERCENT OF THE TRAFFIC CROSSING THE BRIDGE ARE COMMERCIAL TRUCKS. BY 1994 THE NUMBER OF VEHICLES CROSSING THE BRIDGE WILL RISE TO 45,000, MAKING IT COMPLETELY INADEQUATE. ROUTE 13 WILL BE APPROACHING GRIDLOCK.

THE STATE OF DELAWARE IS SPENDING NEARLY $400 MILLION TO BUILD A 46-MILE U.S. 13 RELIEF ROUTE TO KEEP UP WITH TRAFFIC DEMANDS. THE DELMARVA BUSINESS COMMUNITY NEEDS YOUR HELP IN GETTING THE FEDERAL GOVERNMENT TO PAY FOR A NEW $112 MILLION BRIDGE OVER THE FEDERALLY-OWNED CANAL.

YOU MAY HAVE HEARD THE PERDUE SLOGAN THAT SAYS IT TAKES TOUGH MAN TO MAKE A TENDER CHICKEN. WELL, THAT'S REALLY ONLY PART OF IT. IT ALSO TAKES GOOD ROADS AND GOOD BRIDGES WITH ADEQUATE CAPACITY TO GET THE CHICKEN FROM THE FARM, TO THE PROCESSING PLANT, TO THE SUPERMARKET, TO THE KITCHEN TABLE. UNTIL LAST FALL, WHEN IT WAS CLOSED TO TRUCK TRAFFIC, SEVENTY OF MY TRUCKS CROSSED THE ST. GEORGE'S BRIDGE IN EACH DIRECTION EVERY DAY. THAT'S $10 MILLION OF PRODUCT A WEEK GOING TO DESTINATIONS AS FAR NORTH AS MAINE.

CLOSING THE EXISTING ST. GEORGE'S BRIDGE TO TRUCK TRAFFIC WILL COST PERDUE $450,000 A YEAR IN OUT-OF-ROUTE MILES. IN A MARKET AS COMPETITIVE AS OURS, THAT CAN MEAN A REAL DISADVANTAGE WHEN COMPARED TO PRODUCERS ON THE OTHER SIDE OF THE CHESAPEAKE BAY. ADD TO THAT COST THE ADDITIONAL TIME DELAYS IN GETTING OUR PRODUCT TO MARKET, AND IT BECOMES EVEN TOUGHER TO COMPETE.

THE U.S. ARMY CORPS OF ENGINEERS HAS AGREED TO SOME REPAIRS TO THE OLD ST. GEORGE'S BRIDGE THAT WILL ALLOW IT TO REOPEN TO TRUCK TRAFFIC IN A FEW MONTHS. BUT THOSE REPAIRS WILL OFFER US ONLY TEMPORARY RELIEF. MAJOR REPAIRS WILL STILL BE NECESSARY SOME DAY, IMPOSING TRUCK RESTRICTIONS FOR AS LONG AS TWO YEARS. AND EVEN THEN, THE U.S. DEPARTMENT OF TRANSPORTATION SAYS THE BRIDGE WILL STILL BE OBSOLETE. POOR DESIGN MAKES EXPANSION OF THE BRIDGE TO MEET INCREASING TRAFFIC DEMANDS IN THE 1990'S IMPOSSIBLE. THERE'S NO GETTING AROUND IT, A NEW BRIDGE SHOULD BE BUILT.

MR. CHAIRMAN, I KNOW MY BUSINESS. I DON'T KNOW YOURS. BUT I CAN TELL YOU THAT IF YOUR INTERESTED IN KEEPING OUR ECONOMY GOING, IT CAN'T BE DONE IF OUR INFRASTRUCUTRE CONTINUES TO DETERIORATE. IT CAN'T BE DONE WITH BRIDGES THAT ARE OBSOLETE AND FALLING DOWN. IT CAN'T BE DONE IF A MAJOR TRANSPORTATION ARTERY IN OUR COUNTRY CAN'T SERVE THE COMMERCIAL TRAFFIC THAT DEPENDS ON IT.

MR. CHAIRMAN, THE ECONOMIC CASE FOR INVESTING IN THIS NEW BRIDGE COULD NOT BE STRONGER. TRUCKING IS CRITICAL TO AGRICULTURE, AND AGRICULTURE IS CRITICAL TO THE DELMARVA PENINSULA. I URGE YOU AND YOUR COLLEAGUES TO INCLUDE AUTHORIZATION OF A NEW BRIDGE ACROSS THE FEDERALLY-OWNED CHESAPEAKE AND DELAWARE CANAL IN THIS YEAR'S RIVERS AND HARBORS BILL.

THANK YOU FOR YOUR TIME AND ATTENTION.

Mr. CARPER. Mr. Chairman, again we do appreciate the opportunity to appear before your subcommittee to discuss the need for a new bridge across the Federally-owned Chesapeake and Delaware Canal which goes through St. Georges, Delaware. Delaware has a situation which I believe is unique to any other State in the Nation. There is a canal, one that is owned again by the Federal Government, which literally cuts our State in half. The canal connects the Delaware and Chesapeake bays. It makes for easier shipping between Baltimore and Philadelphia. It also creates a shortcut for ocean-going ships that are leaving Baltimore and heading north.

In providing this service to navigation, the canal was cut through what had been fast land where no bridges had previously been required. It was for that reason that the State determined before the canal was built that the cost of public bridges must be met by the owners of the canal, rather than by the citizens of Delaware. By connecting the two bays, the canal effectively makes the Delmarva Peninsula an island and by the Delmarva Peninsula, we're referring to the southern portion of Delaware, as well as the eastern shore of Maryland and a portion of Virginia.

There are three major bridges that carry surface transportation off of this Delmarva Peninsula. They include the Chesapeake Bay Bridge Tunnel to the south, the Chesapeake Bay Bridge to the west, and the St. Georges Bridge to the north. While the canal might be great for some shippers, it does nothing but create problems for the people of Delaware. Our State receives no economic benefit from the canal. In fact, because of the growing inadequacy of U.S. Route 13 and the deterioration of the existing St. Georges Bridge, the economy of southern Delaware and the entire Delmarva Peninsula is, we now believe, at risk.

I cannot emphasize enough how little that we Delawareans care for the Federal canal that cuts through our State. I will only put it this way. If we could fill in the canal, I think Delawareans would line up—I would lead them—would line up with our shovels in hand to do the job. It is simply not equitable for the Federal Government to require Delaware to pay the high cost of connecting our highways across the canal which provides economic benefits that accrue out of State.

Mr. Chairman, let me just if I could digress. Imagine if you could, a canal that went through Panama. In Panama, they have a canal that connects one ocean to another. That canal accrues great benefits to the people of Panama. They receive revenues from the ships that go through. There are a lot of jobs that are involved in maintaining the canal. We have neither—no revenues, no benefits, no jobs. It's simply a nuisance and a problem for us in our state.

Let me further add that we believe there are strong legal arguments that the Federal Government, in taking over the canal in 1919, accepted the responsibility for providing good and sufficient crossings to maintain the flow of traffic and commerce through Delaware to points both north and south. Certainly, everyone acknowledges the critical commercial importance of the U.S. Route 13 corridor but there is also a question of good faith. Since taking over the Chesapeake and Delaware Canal, the Federal Government has never, never shirked its responsibility to provide adequate bridges to carry traffic over this canal.

Legislation passed out of this very committee has provided for the C&D canal bridges with adequate capacity on three occasions since 1919. I believe this committee never intended to place a huge Federal obstacle across the State of Delaware without making provisions for necessary bridges.

We are now at a critical juncture. Traffic volume on Route 13, our major north-south highway, is rapidly increasing. The existing bridge at St. Georges will be completely inadequate by 1994. It cannot be expanded given its unusual shape and character. The U.S. Department of Transportation has in fact declared this bridge obsolete. We believe the Federal Government should once again make good on the promise it made to the citizens of Delaware when it took over the canal 70 years ago and that would be to pay for this new bridge.

The total cost of $112 million is only a fraction of the $400 million that the State of Delaware is prepared to pay to construct a 46-mile, limited-access relief route alongside Route 13 to meet the traffic needs of U.S. Route 13 in Delaware for the foreseeable future.

Construction on the relief route has already begun. The bridge is an integral part of the relief route. So it's construction cannot be delayed. Planning for the bridge is completed and the State is prepared to make the sacrifices necessary to begin building it with the promise that they will be reimbursed for the costs of construction.

Mr. Chairman and members of the committee, the State of Delaware is working in good faith with the Bush Administration to settle the legal obligation question but regardless of whether those efforts bear fruit or not, this problem—our problem—and again, a problem that accrues to our entire region, will not go away.

I ask that this committee continue its well-established record of recognizing the Federal obligation to provide adequate crossings over the Chesapeake and Delaware Canal by making sure that the U.S. Army Corps of Engineers has the authority to provide such bridges, including the new U.S. Route 13 relief route bridge.

Mr. Chairman, if it's appropriate at this time that I might defer to Secretary Justice. I would ask for him unanimous consent that materials that he's brought with him be submitted for the record.

Mr. NOWAK. Without objection, so ordered.

Mr. CARPER. Thank you very much.

Mr. NOWAK. Mr. Secretary.

Mr. JUSTICE. Mr. Chairman, thank you very much. Let me first express my appreciation to Congressman Carper who has been at the forefront of trying to assist us in making our case before the Administration as well as through the legislative process.

I am very appreciative of that. It is also true that our United States Senators will be making the same effort from the other side.

Mr. Chairman, members of the subcommittee, I'd like to take this opportunity to thank you for the opportunity to appear today as well. As Congressman Carper said, I am the Secretary of Transportation for Delaware, have been for the past 11 years and I've submitted an opening statement and supporting documentation for the record and with your permission, I'd like to summarize the testimony at this time.

Mr. NOWAK. Your complete statement will be incorporated in the record, Mr. Justice.

Mr. JUSTICE. Thank you, sir. I'm here to present the views of the Government of the State of Delaware regarding the responsibility for providing public highway bridges over the Federal Chesapeake and Delaware Canal and specifically, for a new bridge needed now to carry the traffic of the U.S. Route 13 relief route. Obviously, some of what I say is going to be redundant to what the Congressman has said but I think it appropriate for following it that I go ahead with it.

As you know, the Chesapeake and Delaware Canal cuts completely across the Delmarva Peninsula, severing Delaware border to border. All the highway bridges across the canal have been built by the Corps of Engineers since the United States took over the canal to enlarge it in 1919.

The Delaware Department of Transportation is now constructing a limited-access highway to carry the traffic of the presently-overloaded U.S. Route 13, the main north-south traffic corridor in Delaware and indeed in the three-state Delmarva peninsula. This highway has been planned and cited under Federal Highway Administration procedures and the final environmental impact statement for the project, including the bridge, has been filed and approved by the Federal Highway Administration with the Corps of Engineers, the Environmental Protection Agency and other government agencies as participating agencies.

The present U.S. Route 13 bridge over the C&D Canal at St. Georges, Delaware, built 50 years ago by the Corps of Engineers, is incapable of being modified to carry the traffic in this corridor. The Delaware Department of Transportation has designed a new bridge for the relief route simply because the corps had no funds to do so, quite frankly. We must meet the schedule forced by traffic demands and to do less would be a mistake on all of our parts. The new bridge should begin construction by the end of this calendar year. I want to emphasize that. We should begin construction by the end of this calendar year to meet the demands that are essential because the bridge will be outstripped in capacity and no abilities to do anything about it.

We were disappointed to learn last year that the corps had made no provision to budget for the bridge, nor even to inform Congress of the need. Most surprising, the corps informed us that the Federal Government had no obligation to provide bridges over the C&D Canal, despite having done so for 70 years. It is clear to us that unless the committee that has legislative jurisdiction over the C&D Canal initiates legislation to clarify this situation, the Federal Government may indeed get away from its responsibility to provide public highway bridges over the C&D Canal.

Mr. Chairman, Delaware firmly believes that the Federal Government has the responsibility to provide public highway bridges over the C&D Canal at no cost to Delaware citizens. This obligation arises through the contractual history of the Federal Government and the State of Delaware in relation to the canal and this is documented in the materials submitted for the record, but that is not the whole story.

There is also a good faith situation that the Congressman referred to. At the time Delaware consented by law to the Federal acquisition of the canal, Delaware expected the Federal Government to continue to provide good and sufficient highway bridges as Delaware law required. The Federal Government planned at that time to do so. Under the leadership of this committee, the Federal Government has done so for 70 years. Surely, good faith requires that the Federal Government not suddenly and unilaterally abandon the understanding.

Mr. Chairman, Delaware asks this subcommittee to initiate legislation to restate the intent of the Congress to provide good and sufficient bridges over the C&D Canal at no cost to Delaware and to clarify that the Corps of Engineers has the necessary authority to carry out this intent. We suggest some draft language in the materials submitted for the record.

Mr. Chairman, Delaware is doing its part to meet the surface transportation needs of the region. We are spending $400 million of State funds to build the new Route 13 relief route. We have offered to finance and build the new C&D Canal bridge estimated to cost $111.5 million, provided the corps will agree to reimburse us through leasing it on completion. This postpones Federal expenditures until 1994 or 1995 and reduces the annual budget requirements.

We ask your help and we appreciate the opportunity to present our case. Thank you, sir.

Mr. CARPER. Mr. Chairman, we're prepared to respond to any questions that you or members of the committee might have.

Mr. NOWAK. Well, let me just ask a couple of questions as a general review of this.

Why do you believe you need authorizing legislation for the bridge? Given that you claim a Federal obligation exists and really that you're not asking the Corps of Engineers to construct a bridge?

Mr. CARPER. Well, Corps of Engineers for itself has indicated that they don't believe they have a legal obligation to build the bridge and suggested as much as there is a need for an authorization if one is to be built. Further, the appropriations subcommittee of jurisdiction have indicated that they believe an authorization is needed. We are simply going to try to play by the rules and to our mind, it seemed that this is the appropriate place to begin.

Mr. NOWAK. I have other questions that I'd like to submit to you in writing because this is somewhat of a complicated matter.

Mr. CARPER. Yes, it is.

Mr. NOWAK. I appreciate the time you spent not only now but in the past going over the dilemma in which you find yourselves.

Let me turn to Arlan Stangeland for any questions he may have.

Mr. STANGELAND. Well, I thank you for coming before us with this problem. This is the first we've been presented with this problem?

Mr. CARPER. Actually this problem has been presented to this committee on and off for 70 years.

Mr. STANGELAND. No, but I mean this bridge?

Mr. **Carper**. This particular bridge is new for this committee.

Mr. **Stangeland**. You know, it's very appropriate that you come to us before the fact because history has told us that if you go ahead and do the work without some commitment that you'll get reimbursed, you'll be hung out to dry. So we're thankful that you came and let us know about it and we'll certainly look into it and discuss it with the corps when they come before us after the wrap-up of the Members' sessions.

It sounds like you have a very good case. We'll just have to see what the corps' problems are and why they abdicate their responsibility that they accepted 70 years ago.

Mr. **Carper**. This canal has been in existence since 1801 when it was first authorized. The Federal Government condemned it and took it over in the early part of this century and for 70 years has met an obligation to provide adequate transportation over this canal. The canal provides no benefit to Delaware, none at all, and we appreciate the commitment that the Federal Government has shown, this committee has demonstrated in the past and all that we ask is the continued fairness and equity that's been demonstrated by the Congress and by the Federal Government to our State.

We appreciate the chance to be here.

Mr. **Stangeland**. We also want you to tell Mr. Perdue we missed him because there was a definite reason for you being scheduled around 12:15 p.m. [Laughter.]

Mr. **Carper**. We'll pass that on.

Thank you very much.

Mr. **Nowak**. Thank you very much, Congressman Carper.

[Mr. Carper's prepared statement follows:]

TESTIMONY OF THE HONORABLE THOMAS R. CARPER
before the
SUBCOMMITTEE ON WATER RESOURCES
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
March 7, 1990

MR. CHAIRMAN, THANK YOU FOR THE OPPORTUNITY TO APPEAR BEFORE YOUR SUBCOMMITTEE THIS MORNING TO DISCUSS THE NEED FOR A NEW BRIDGE ACROSS THE FEDERALLY-OWNED CHESAPEAKE AND DELAWARE CANAL AT ST. GEORGES, DELAWARE.

DELAWARE HAS A SITUATION WHICH I BELIEVE IS UNIQUE TO ANY OTHER STATE IN THE NATION. THERE IS A CANAL -- OWNED BY THE FEDERAL GOVERNMENT -- WHICH LITERALLY CUTS OUR STATE IN HALF. THE CANAL CONNECTS THE DELAWARE AND CHESAPEAKE BAYS AND MAKES FOR EASIER SHIPPING BETWEEN BALTIMORE AND PHILADELPHIA. IT ALSO CREATES A SHORTCUT FOR OCEAN-GOING SHIPS LEAVING BALTIMORE HEADING NORTH.

IN PROVIDING THIS SERVICE TO NAVIGATION, THE CANAL WAS CUT THROUGH WHAT HAD BEEN FAST LAND WHERE NO BRIDGES HAD PREVIOUSLY BEEN REQUIRED. IT WAS FOR THAT REASON THAT THE STATE DETERMINED BEFORE THE CANAL WAS BUILT THAT THE COST OF PUBLIC BRIDGES MUST BE MET BY THE OWNERS OF THE CANAL RATHER THAN THE CITIZENS OF DELAWARE.

BY CONNECTING THE TWO BAYS, THE CANAL EFFECTIVELY MAKES THE DELMARVA PENINSULA AN ISLAND. THERE ARE THREE MAJOR BRIDGES THAT CARRY SURFACE TRANSPORTATION OFF THE PENINSULA: THE CHESAPEAKE BAY-BRIDGE TUNNEL TO THE SOUTH, THE CHESAPEAKE BAY BRIDGE TO THE WEST, AND THE ST. GEORGE'S BRIDGE TO THE NORTH.

WHILE THE CANAL MIGHT BE GREAT FOR SOME SHIPPERS, IT DOES NOTHING BUT CREATE PROBLEMS FOR DELAWARE. THE STATE GETS NO ECONOMIC BENEFIT FROM THE CANAL. IN FACT, AS FRANK PERDUE WILL EXPLAIN, BECAUSE OF THE GROWING INADEQUACY OF THE U.S. ROUTE 13, AND THE DETERIORATION OF ST. GEORGE'S BRIDGE, THE ECONOMY OF SOUTHERN DELAWARE AND THE ENTIRE DELMARVA PENINSULA IS NOW AT RISK.

I CANNOT EMPHASIZE ENOUGH HOW LITTLE DELAWAREANS CARE FOR THE FEDERAL CANAL THAT CUTS THROUGH OUR STATE. BUT LET ME PUT IT THIS WAY, IF WE COULD FILL IN THE CANAL, I THINK DELAWAREANS WOULD LINE UP WITH SHOVELS IN HAND TO DO THE JOB. IT IS SIMPLY NOT EQUITABLE FOR THE FEDERAL GOVERNMENT TO REQUIRE DELAWARE TO PAY THE HIGH COST OF CONNECTING ITS HIGHWAYS ACROSS A CANAL WHICH PROVIDES ECONOMIC BENEFITS THAT ACCRUE OUT OF STATE.

MR. CHAIRMAN, THERE ARE STRONG LEGAL ARGUMENTS THAT THE FEDERAL GOVERNMENT, IN TAKING OVER THE CANAL IN 1919, ACCEPTED THE RESPONSIBILITY FOR PROVIDING GOOD AND SUFFICIENT CROSSINGS TO MAINTAIN THE FLOW OF TRAFFIC AND COMMERCE THROUGH DELAWARE TO POINTS NORTH AND SOUTH. AND CERTAINLY EVERYONE ACKNOWLEDGES THE CRITICAL COMMERCIAL IMPORTANCE OF THE U.S. ROUTE 13 CORRIDOR. BUT THERE IS ALSO A QUESTION OF GOOD FAITH.

SINCE TAKING OVER THE CHESAPEAKE AND DELAWARE CANAL, THE FEDERAL GOVERNMENT HAS NEVER SHIRKED ITS RESPONSIBILITY TO PROVIDE ADEQUATE BRIDGES TO CARRY TRAFFIC OVER THE CANAL. LEGISLATION PASSED OUT OF THIS COMMITTEE HAS PROVIDED FOR C&D CANAL BRIDGES WITH ADDED CAPACITY ON THREE OCCASIONS SINCE 1919. I BELIEVE THIS COMMITTEE NEVER INTENDED TO PLACE A HUGE FEDERAL OBSTACLE ACROSS THE STATE OF DELAWARE WITHOUT MAKING PROVISION FOR NECESSARY BRIDGES.

WE ARE NOW AT A CRITICAL JUNCTURE. TRAFFIC VOLUME ON ROUTE 13 IS RAPIDLY INCREASING. THE EXISTING BRIDGE AT ST. GEORGE'S WILL BE COMPLETELY INADEQUATE BY 1994 AND CANNOT BE EXPANDED. THE U.S. DEPARTMENT OF TRANSPORTATION HAS DECLARED IT OBSOLETE.

WE BELIEVE THE FEDERAL GOVERNMENT SHOULD ONCE AGAIN MAKE GOOD ON THE PROMISE IT MADE TO THE CITIZENS OF DELAWARE WHEN IT TOOK OVER THE CANAL 70 YEARS AGO AND PAY FOR A NEW BRIDGE. THE TOTAL COST OF $112 MILLION IS ONLY A FRACTION OF THE $400 MILLION THE STATE OF DELAWARE IS PREPARED TO PAY TO CONSTRUCT A 46-MILE LIMITED ACCESS RELIEF ROUTE TO MEET THE TRAFFIC NEEDS OF U.S. ROUTE 13 IN DELAWARE FOR THE FORESEEABLE FUTURE.

CONSTRUCTION ON THE RELIEF ROUTE HAS ALREADY BEGUN. THE BRIDGE IS AN INTEGRAL PART OF THE RELIEF ROUTE, SO ITS CONSTRUCTION CANNOT BE DELAYED. PLANNING FOR THE BRIDGE IS COMPLETED AND THE STATE IS PREPARED TO MAKE THE SACRIFICES NECESSARY TO BEGIN BUILDING IT WITH THE PROMISE THAT THEY WILL BE REIMBURSED FOR THE COSTS OF CONSTRUCTION.

MR. CHAIRMAN, THE STATE OF DELAWARE IS WORKING IN GOOD FAITH WITH THE BUSH ADMINISTRATION TO SETTLE THE LEGAL OBLIGATION QUESTION. BUT REGARDLESS OF WHETHER THOSE EFFORTS BEAR FRUIT OR NOT, THIS PROBLEM WON'T GO AWAY.

I ASK THAT THIS COMMITTEE CONTINUE ITS WELL-ESTABLISHED RECORD OF RECOGNIZING THE FEDERAL OBLIGATION TO PROVIDE ADEQUATE CROSSINGS OVER THE CHESAPEAKE AND DELAWARE CANAL BY MAKING SURE THAT THE U.S. ARMY CORPS OF ENGINEERS HAS THE AUTHORITY TO PROVIDE SUCH BRIDGES, INCLUDING THE NEW U.S. ROUTE 13 RELIEF ROUTE BRIDGE

[Mr. Justice's prepared statement with attachments follows:]

March 7, 1990

DELAWARE US ROUTE 13 RELIEF ROUTE
BRIDGE
OVER THE FEDERAL CHESAPEAKE AND DELAWARE CANAL

TESTIMONY OF KERMIT JUSTICE
SECRETARY OF TRANSPORTATION, STATE OF DELAWARE
BEFORE
THE SUBCOMMITTEE ON WATER RESOURCES
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
UNITED STATES HOUSE OF REPRESENTATIVES

Mr. Chairman and members of the subcommittee, I thank you for the opportunity to appear before you today.

I am Kermit Justice, Secretary of Transportation, State of Delaware.

I am here to present the views of the government of the State of Delaware regarding the responsibility for providing public highway bridges over the federal Chesapeake and Delaware canal in general, and specifically for a new bridge needed now to carry the traffic of the US Route 13 Relief Route now under construction by my department at an estimated cost of $400 million in State funds.

As you know, the Chesapeake and Delaware Canal cuts completely across the DelMarVa Peninsula, severing Delaware border to border.

The Delaware Department of Transportation is now constructing a limited access highway to carry the traffic of the presently overloaded US Route 13, the main north-south traffic corridor in Delaware, and indeed in the three-state DelMarVa Peninsula. This highway has been planned and sited under Federal Highway Administration procedures, and the final EIS for the project, including the bridge, has been filed and approved by the FHWA.

The present US Route 13 bridge over the C&D canal at St. George's Delaware, built 50 years ago by the Corps of Engineers, is incapable of being modified to carry the traffic in this corridor.

Because the Corps of Engineers had no money to do so, the Delaware Department of Transportation has designed a new bridge to US Department of Transportation and Corps of Engineers standards - so we could keep it on schedule. The bridge and necessary approaches will cost $111.5 million.

We were surprised last year to find that the Corps of Engineers had made no provision to budget for construction of the bridge, nor had they acquainted the Congress with the need for it.

Recognizing the press of time, schedule, and pressure on the Federal budget, the State of Delaware has offered to finance and build the bridge ourselves and lease it to the Corps on completion at a rent to recover our cost of construction, debt service, and operation and maintenance.

Though this postpones first Federal outlays until FY 1994 or 1995, we do need this year a Federal commitment to make those lease payments or we fear the Corps may not meet its obligation.

Indeed the Corps has advanced the argument that they have no obligation to provide public highway bridges over the C&D Canal despite having done so for 70 years under the leadership of this Committee.

Our discussions in Washington over the last year have made it clear to us that leadership by this Committee is critical to Federal action on this vital issue. We believe that the other concerned Federal interests are willing to act if you point the way by initiating legislation.

Therefore, the State of Delaware is asking this Subcommittee to begin the legislative process of:

- restating the intent of the Federal Government to meet its responsibility to the people of Delaware to build and maintain good and sufficient bridges over the C&D canal, at no cost to the State, to meet the needs of public highway traffic, and
- making it clear that the army Corps of Engineers has the necessary authority to provide such bridges, including the new US Route 13 Relief Route bridge.

Attached is a draft of the legislation we would suggest.

The State of Delaware believes that the Federal Government is responsible for providing bridges over the C&D Canal for reasons of legal history, equity, and good faith. Let me outline those reasons briefly.

Legal history: The first C&D canal was built by a private company chartered and franchised by specific laws of Delaware and Maryland. Recognizing that the canal would cut Delaware completely in two, border to border, the State law required the company to provide, without cost to the state, good and sufficient bridges to enable public road traffic to cross the canal without inconvenience.

In the charter law, the State reserved the right to enact laws regarding bridges that would be binding on the company.

In 1919, pursuant to Federal law, the Federal Government acquired the rights, property, and franchises of the company. The franchise included the obligation to the State of Delaware to provide bridges. The Federal Government was not authorized to, nor did it, acquire from the State a release from that obligation. In effect, the Federal Government acquired the canal, the contract of the canal company with the State of Delaware, and the contractual obligation of the company to provide bridges over the canal for the Delaware public roads.

For 70 years, under the leadership of this Committee, the Federal Government has met that obligation to provide good and sufficient public highway bridges over the C&D canal. Federal witnesses before this Committee have stated that obligation, and resulting laws originated in this Committee have repeatedly acted upon it by providing additional bridge capacity, and by requiring waivers of the obligation if alternative amenities were provided in lieu of bridges.

Only in the last year has the Corps of Engineers attempted to deny that the obligation exists.

The State of Delaware indeed believes that the Federal obligation remains. I would like to submit for the record supporting documentation prepared by the Delaware Attorney General and by the Senate Judiciary Committee.

Equity: The C&D Canal was taken over and enlarged by the Federal Government to provide national economic benefits and to improve the national security. Though Delaware shares in the general national security benefit, almost none of the economic benefits accrue in Delaware. Indeed, the primary function of the C&D canal is to provide a shortcut for ocean and coastal shipping through Delaware Bay to the port of Baltimore, Maryland.

In order to provide for navigation, bridges over the C&D Canal are now required to provide a clear span across a 450 foot wide channel, and to be at least 140 feet above the water. Site selection for new bridges, that ultimately determines the cost of approaches, is governed by Federal highway planning and environmental law.

The Route 13 bridge and approaches, designed and sited to Federal standards, will cost $111.5 Million.

It would not be equitable for the Federal Government to require Delaware to pay the high cost of connecting its highways across this canal - that was originally fast land requiring no bridges at all - in order to provide national economic benefits that accrue almost entirely out of State.

Good faith: The arrangement between the Federal Government and the State of Delaware was entered into voluntarily and in good faith by both parties. The State of Delaware consented by law to the Federal acquisition of the canal with the expectation that good and sufficient bridges would be provided at no cost to the State. The record indicates that the Federal Government shared that expectation at the time of takeover.

The recognition of that obligation is documented in the legal reports submitted for the record. Under legislation reported by this committee, C&D canal bridges have in fact been replaced with added traffic capacity at three locations in Delaware.

The Federal Government has recognized and met its contractual obligation to the State of Delaware for the past 70 years.

Maintaining good faith with the State requires that the Federal Government not unilaterally decide that bridges will no longer be a Federal responsibility, and requires that the Federal Government not now claim that such an obligation never did exist - as the Corps of Engineers has attempted to do.

I believe that this Committee, that has legislative jurisdiction over the C&D canal,

- does recognize the Federal obligation to the State of Delaware,

- never intended to place this huge obstacle across all north-south highways in Delaware without making provision for necessary bridges,
- and will not want the Federal Government to break faith with the State of Delaware

I hope you will help to set the record straight with appropriate legislation as the State requests.

I will say in closing that this is an urgent matter. Our traffic projections, prepared under Federal Highway Administration procedures, indicate that the present Route 13 bridge will be overloaded by 1994. It carries 33% of the total traffic flow in and out of the Peninsula, and 60% of the traffic across the C&D canal. It carries as much traffic per lane as the Chesapeake Bay Bridge at Annapolis. The State has already begun building the Relief Route. If traffic demands and the Relief Route construction schedule are to be met, construction of the new bridge must begin before the end of this calendar year.

Thank you.

Attachments:

A. Proposed Authorization Language
B. The need for Federal Funding, Jan. 29th, 1990
C. Legal Documentation **(With original only)**
    - Senate Judiciary Committee Memoranda, June 20, 1989,
      Nov. 9, 1989, February 2, 1990
    - Delaware Attorney General Memoranda, Nov 16, 1989

February 22, 1990

ATTACHMENT A

March 7, 1990

PROPOSED LEGISLATION AUTHORIZING THE US ARMY CORPS OF ENGINEERS TO MEET THE OBLIGATION OF THE UNITED STATES TO PROVIDE PUBLIC HIGHWAY BRIDGES OVER THE CHESAPEAKE AND DELAWARE CANAL AT NO COST TO THE STATE OF DELAWARE

Bill language: It is the intent of Congress that the United States should continue to meet the obligation to the State of Delaware to provide, at no cost to the State, good and sufficient bridges over the Chesapeake and Delaware Canal to meet the needs of traffic on the Delaware public highways, as determined by the State, **provided that the State's determination is made after considering the results of highway planning procedures approved by the Federal Highway Administration.** The said obligation was part of the franchise of the Chesapeake and Delaware Canal Company previously established in Delaware law, and was assumed by the United States with the acquisition of the property and rights of the Company in 1919.

The Assistant Secretary of the Army for Civil Works, acting through the Chief of the Army Corps of Engineers, is authorized to provide such good and sufficient public highway bridges over the Chesapeake and Delaware Canal through construction or lease of facilities, modification of existing facilities, or such other means as may be mutually agreed upon by the Assistant Secretary and the State of Delaware.

Explanation: This provision restates the intent of the Congress to meet the obligation to the State of Delaware to provide good and sufficient bridges over the Chesapeake and Delaware Canal to meet the needs of traffic on the public highways of Delaware at no cost to the State, and provides permanent authorization to the Corps of Engineers to provide bridges through new construction, lease of facilities, modification of existing facilities, or other means mutually agreed upon by the Assistant Secretary of the Army for Civil Works and the State of Delaware.

It recognizes the right of the State under present law to determine the need for bridges, but conditions the exercise of that determination on the application of highway planning and siting procedures approved by the Federal Highway Administration.

Delaware law established the charter of the C&D Canal Company in 1801 requiring, as a condition of the right to build and operate a navigation canal that cuts the State completely in two, that the Company provide good and sufficient public highway bridges over the canal at no cost to the State, and reserving the right of the State to determine the conditions of compliance.

Pursuant to law, the United States acquired the property and franchises, including the rights and obligations, of the C&D Canal Company in 1919 for the purpose of enlarging the Canal and incorporating it into the Intracoastal Waterway System constructed and operated by the Army Corps of Engineers. Thus, the United States assumed the obligation to provide good and sufficient public highway bridges over the canal at no expense to the State of Delaware.

The present C&D Canal provides access for ocean shipping through Delaware Bay to Baltimore Maryland and other Chesapeake Bay points. It severs land transportation completely across the State of Delaware and the rest of the DelMarVa Peninsula.

To meet the needs of shipping, the United States now requires new highway bridges across the Canal to provide a clear span over a 450 foot wide channel 140 feet above the water. Site selection for new bridges, that ultimately determines the cost of approaches, is controlled by Federally established highway planning and environmental procedures.

For the above reasons, it is appropriate that the Federal Government pay the cost of public highway bridges over the C&D Canal that the State has determined to be needed through the application of highway planning procedures approved by the Federal Highway Administration.

The State of Delaware is now constructing a limited access highway at the cost of $400 million in State funds to meet the expanding traffic needs in the US Route 13 corridor. As an integral part of the Federally approved planning process for the US Route 13 Corridor, the State has also determined the need for a new bridge to carry the traffic over the C&D Canal. The State Transportation Department is prepared to finance and build the new bridge and approaches, estimated to cost $111.5 million, and has offered to lease the new facilities to the Corps of Engineers as a means of recouping the costs of construction, debt service, operation, and maintenance.

This provision recognizes the authority of the Army to lease the bridge to be constructed by the State of Delaware, and provides authority to the Army to construct, modify, lease, or otherwise provide facilities in the future to meet the obligation of the United States to the State of Delaware for public highway crossings over the C&D Canal.

January 29, 1990

DELAWARE U.S. ROUTE 13 RELIEF ROUTE BRIDGE OVER THE CHESAPEAKE AND DELAWARE CANAL

The need for Federal Funding

- The Delaware US Route 13 Relief Route project

  - Is a 46-mile 4-lane limited access highway from Delaware Route 7 to Road 30 south of Dover (partially toll).

  - Includes a new bridge over the C&D Canal funded by the Corps of Engineers (free - non-toll).

  - Will cost $503 million, including $112 million for the bridge.

  - Has been planned by the Delaware Department of Transportation in conjunction with the U.S. Department of Transportation. All environmental planning complete - including final EIS.

  - Has been started at southern end. Bridge will be ready to start construction in 1990.

  - Must be completed as soon as possible to meet traffic demands on U.S. Route 13 corridor, the main north-south route in Delaware, and before the existing St. George's bridge carrying Rt. 13 is partly closed for rehabilitation.

- The Federal Government (Corps of Engineers) is responsible for funding the new bridge because:

  - Original Delaware law chartering C&D Canal Company required company to construct and maintain bridges at its expense, as determined by the State.

  - Federal acquisition of Canal Company franchise and property for the Corps of Engineers in 1919 included acceptance of company legal obligations to the State of Delaware.

  - Specific recognition of Federal responsibility to provide bridges is contained in subsequent Federal law and administrative records, most recently in the Surface Transportation and Uniform Relocation Act of 1987, directing the Corps to review relevant documents to determine how best to provide a new structure for this project.

  - Federal Government has met the contractual obligation to construct and maintain public road bridges continuously since taking over the Canal, through construction and maintenance of two generations of highway bridges with expanded traffic capacity.

- The project, including the new bridge, has not gone through the traditional Corps of Engineers planning process because:
  - In 1984, when Delaware began planning the U.S. Route 13 Relief Route, the Corps had no funds to plan the project and forecast delays of up to 20 years of the traditional Corps process were followed.
  - It is appropriate for the Delaware Department of Transportation and the Federal Highway Administration to conduct the planning on this highway corridor because:
    - The U.S. Route 13 Corridor is the primary north-south highway route in the State.
    - The Federal bridge is one element in a much more complex State and Peninsula highway traffic problem.
    - The State is the proper entity to deal with the intra-State technical, economic, and political decisions on location of main highways, siting and design of interchanges, etc.
- We must obtain Federal bridge funding commitment now because:
  - Traffic in the corridor is already backing up unacceptably, and our USDOT-approved projections demonstrate critical traffic increases in the near future requiring more highway lanes of crossing capacity than provided by all existing C&D Canal bridges in Delaware.
  - The new highway is already under construction.
  - The existing Federal St. George's Bridge cannot be modified to handle the traffic of the new highway.
  - The State cannot stand to have half of the present St. George's bridge capacity on Rt. 13 shut down for rehabilitation before the U.S. Route 13 Relief Route bridge is opened.
  - If the State builds the new bridge without Federal commitment to pay its costs, then the longstanding principle of Federal contractual responsibility for highway crossings of the Federal C&D Canal (that cuts the State completely in two) will certainly lapse.

Attachments:
A. Legal background
B. The traffic story - Why the bridge is needed now
C. 1939 Letter
D. Map

January 29, 1989

DELAWARE U.S. ROUTE 13 RELIEF ROUTE BRIDGE OVER THE CHESAPEAKE & DELAWARE CANAL

The Legal Background For the Federal Obligation

The United States Government is legally obligated to pay the cost of construction and maintenance of a new highway bridge, with its approaches, over the Chesapeake and Delaware Canal. This bridge is an integral part of the ongoing Delaware project to increase the traffic carrying capacity of the U.S. Route 13 corridor, the primary North-South traffic route in the State and the entire DelMarVa Peninsula.

- **The original Delaware Charter of the C&D Canal Company required the company to provide bridges at its expense and reserved the right of the State to require the construction of new bridges.**
  - The relevant language of the Act of the Delaware Legislature incorporating the Company reads, "...whenever said canal shall cross any public road, it shall be the duty of said company, at the proper expense of the same, to make and keep good and sufficient bridges across the said canal so as to prevent any inconveniences in the usages of said road or roads by reason of said canal crossing the same, and that it shall be lawful for the legislature of this State to enact laws for the erecting and maintaining bridges across said canal, at the expense of the said company...."
- **When the Federal Government acquired the Canal Company property for the purpose of enlarging the canal, it assumed the obligations of the Canal Company to the State of Delaware.**
  - When the property of the C&D Canal Company was acquired by the Federal Government by condemnation proceedings, the law required acquisition of, "...the existing Chesapeake and Delaware Canal and all the property, rights of property, franchises, and appurtenances used or acquired for use in connection therewith or appertaining thereto...."
  - The property acquired by the Federal Government included the bridges built by the Company.
  - The franchise acquired by the Federal Government included the obligations to the State assumed by the Company in consideration of its enfranchisement by the State - including the obligation to provide sufficient bridges.
  - The obligation was recognized in the legislative history of the acquisition in which Congress imposed the condition that, "all land traffic, both highway and rail, to and from the DelMarVa Peninsula.....could not be broken."

  - Federal abandonment of certain existing and authorized C&D Canal crossings in Maryland in 1927 and 1930 was conditioned by law upon advance agreement by Maryland authorities releasing the United States from its obligation to provide the crossings and acceptance of alternative projects in lieu thereof. The legislative background of these actions makes clear that the Federal Government wanted to abandon the crossings but recognized the compelling legal responsibility to provide them. (See Hearings before the Committee on Rivers and Harbors, House of Representatives, 69th Congress, First Session," pp. 39-42.)

  - The State of Delaware successfully demonstrated in the legislative history of Acts authorizing the construction of Federal bridges over the C&D Canal, and appropriating funds therefor, that the Federal Government was legally bound to fund the entire cost of bridges and approaches because it assumed the obligations of the Canal Company in 1919. The position of the State was never disputed by the Congress and the full costs were in fact paid by the Federal Government. (See the letter of October 12, 1953, from the Honorable J. Caleb Boggs, Governor of Delaware, to the Honorable Robert T. Stevens, Secretary of the Army, and subsequent provisions of the River and Harbor Act of 1954.)

  - The Federal Government recognized its obligation most recently in the Surface Transportation and Uniform Relocation Assistance Act of 1987 wherein the Corps of Engineers was instructed to review the planning done by the State of Delaware along with other reports to determine how best to modify the C&D Canal project to provide a new canal crossing for the Delaware U.S. 13 Relief Route project.

- **The Federal Government has paid for C&D all Canal highway bridges for the entire history of the Federal Canal.**

  - The Report of the Secretary of War on which authorization of the C&D Canal was based listed the highway bridges necessary to carry public road traffic over the canal, and all those constructed were at full Federal expense.

  - All but one of the original bascule bridges constructed by the Corps of Engineers have been replaced with more modern bridges at full Federal expense, most with added traffic capacity (including 4 new lanes, 2 on each of 2 bridges), pursuant to specific authorizing legislation.

Because the Federal C&D Canal cuts completely across the State of Delaware, and because the primary traffic carried by the Canal both originates and terminates outside the State, it is only fair that the cost of bridging the canal continue to be borne by the Federal Government, at the schedule needed by the State and the entire DelMarVa Peninsula.

It is appropriate that the Federal Government accept the Delaware Department of Transportation planning (including scheduling) as a basis of funding the bridge because the planning has been fully participated in and approved by the U.S. Department of Transportation and other Federal agencies.

- The traffic counts and projections demonstrating the need for additional Canal crossing capacity were done in accordance with the U.S. Department of Transportation procedures.
- The location planning, including selection from among alternative sites, was done in accordance with U.S. Department of Transportation procedures and approved by the U.S. DOT.
- The environmental planning was done in keeping with National Environmental Policy Act Federally mandated procedures for highway location, with the final Environmental Impact Statement done in cooperation with the Corps of Engineers, the U.S. Environmental Protection Agency, and the U.S. Coast Guard, and approved by the U.S. DOT.
- All engineering design is being done to standards recognized and accepted by the U.S. DOT.

January 29, 1990

DELAWARE U.S. ROUTE 13 RELIEF ROUTE
BRIDGE OVER THE CHESAPEAKE & DELAWARE CANAL

Need for an Additional Bridge

An additional highway bridge crossing the Chesapeake and Delaware Canal near the present St. George's Bridge in Delaware is necessary even if there were no Route 13 Relief Route planned, because total traffic projected for the near future in the major north south traffic corridors cannot be handled by the existing bridges.

- The U.S. Route 13 corridor is the primary north-south route between major Eastern population centers and the Delmarva Peninsula containing parts of 3 states (Del., Md., and Va.).
- The St. George's bridge is the U.S. Route 13 crossing over the Chesapeake and Delaware Canal.
  - The St. George's Bridge carries 33% of the total traffic flow into and out of the Peninsula - 37,300 Average Annual Daily Transits, 17% of which is commercial trucking.
  - It carries as much traffic per lane as the Chesapeake Bay Bridge.
  - It carries over 60% of the total traffic over the C&D Canal.
- The St. George's Bridge will be overloaded after 1994 according to traffic projections deemed valid by the Federal Highway Administration.
  - 1994 traffic is projected at 45,000 AADT (the practical limit of the existing bridge) at a rate of increase well below that actually observed over the last 15 years.
  - Traffic at the St. George's Bridge Site is projected at 70,000 AADT by 2010.
  - These projections were developed under the U.S. DOT-approved process specified for highway planning by the Federal Highway Administration.

- The existing St. George's bridge cannot be modified to handle the projected traffic because it is 50 years old, in need of rehabilitation, and not designed to current standards.
  - The steep grade, curvature of the bridge, and lack of shoulders make expansion to move more traffic safely impractical.
  - Basic design of the bridge makes it vulnerable to failure in Canal navigational accidents.
    - Piers supporting the main tied arch span with its fracture critical beam are located in the Canal.
    - Failure of the fracture critical beam would mean loss of the entire structure.
- The Summit Bridge cannot handle the U.S. Route 13 overload because traffic on its Northeast-Southwest corridor will reach bridge capacity in the near future.
  - Summit is located on the most direct route between the Delaware Bay Bridge and the Eastern end of the Chesapeake Bay Bridge.
  - Daily traffic on Summit of 15,000 AADT will increase rapidly when the 4-lane approaches currently under construction are completed in 1991.
  - Summit cannot safely pass the St. George's projected overload after 1994 in addition to its own traffic.
- The additional Delaware bridges over the C&D Canal are unable to handle the U.S. Route 13 overload in any practical manner because of location, approach, and capacity conditions.

The Delaware Department of Transportation, using U.S. DOT-approved traffic planning procedures and National Environmental Policy Act procedures throughout a 5-year planning effort, has determined that the most practical solution to the U.S. Route 13 overload problem is the Relief Route project including the new bridge near the present St. George's Bridge site.

BRIDGE ACROSS THE CHESAPEAKE & DELAWARE CANAL

War Department,
Washington, July 6, 1939.

Hon. Josiah W. Bailey,
Chairman, Committee on Commerce,
United States Senate, Washington, D. C.

Dear Senator Bailey: The Department refers to your letter dated June 9, 1939, enclosing a copy of S. 2574, Seventy-sixth Congress, first session, entitled "A bill authorizing the construction of a highway bridge across the Chesapeake and Delaware Canal at St. Georges, Del.", and requesting such suggestions as may be deemed proper touching the merits of the bill and the propriety of its passage.

On January 10, 1939, the highway bridge spanning the Chesapeake and Delaware Canal at St. Georges, about 15 miles south of Wilmington, Del., was struck and demolished by the steamship *Waukegan*. The Chesapeake and Delaware Canal was purchased by the Federal Government under authority of an act of Congress approved March 2, 1919, and with it the United States assumed the obligation of continuing highway crossings over the canal at various localities. The bridge at St. Georges afforded one of these crossings. It was of the vertical-lift type and provided a two-lane roadway for land traffic. Destruction of this bridge severed communication between the two sections of the town of St. Georges, and it was necessary to provide ferry service.

Senate bill 2574 proposes to authorize and direct the War Department to construct a four-lane high-level fixed highway bridge in replacement of the destroyed bridge. It is estimated that such a bridge with a suitable sidewalk on both sides and affording ample clearances for water traffic can be constructed for not to exceed $2,400,000.

The United States is obligated to maintain reasonably adequate highway crossings over the canal. A four-lane high-level fixed highway bridge would provide such a crossing at St. Georges and I recommend favorable consideration by Congress of S. 2574.

To insure immediate construction of the bridge, a suggested change to the bill has been indicated in red thereon.

The Bureau of the Budget advises that there is no objection to the submission of this report.

Sincerely yours,

Harry H. Woodring,
Secretary of War.

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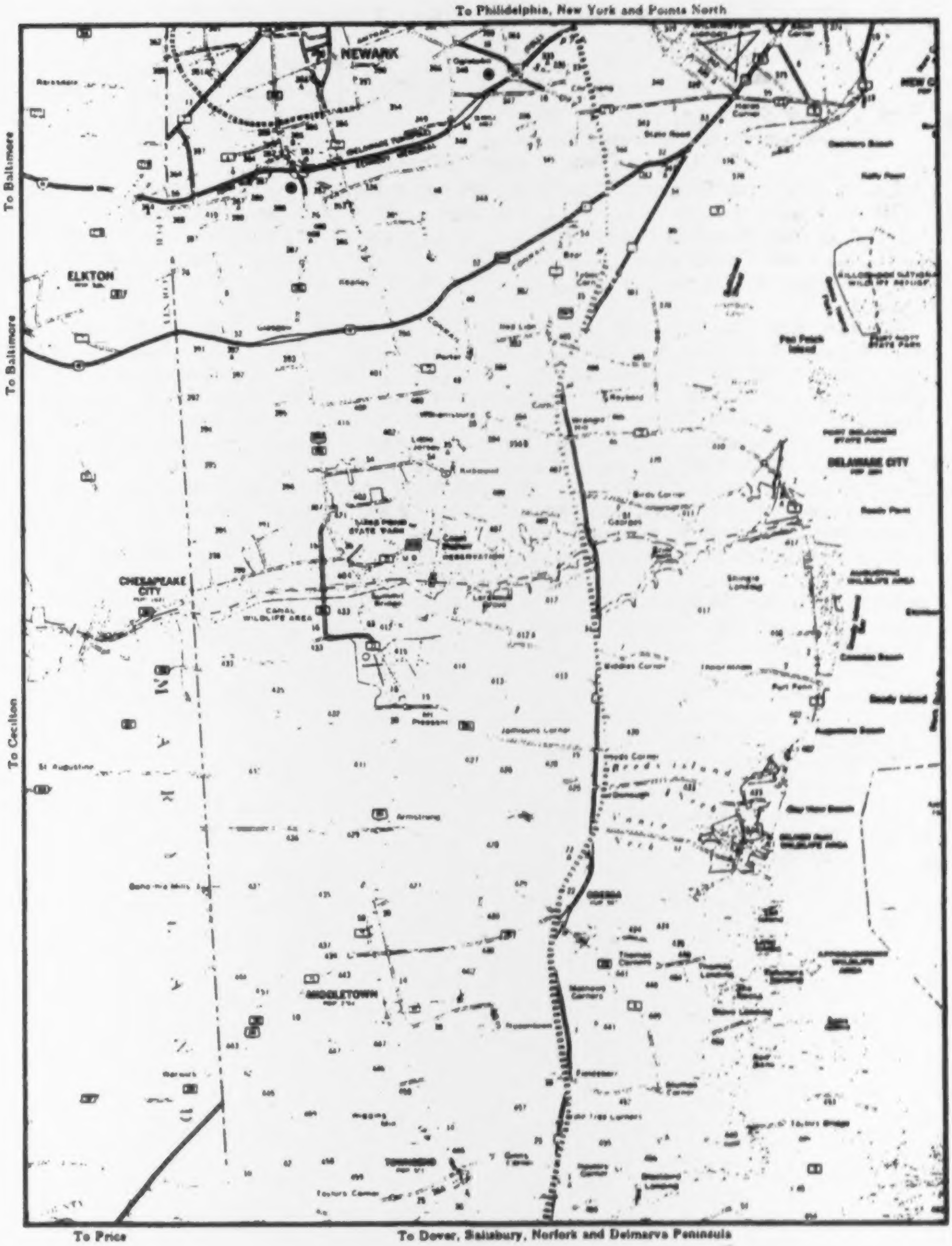
To Philadelphia, New York and Points North
NEWARK
ELKTON
To Baltimore
To Baltimore
CHESAPEAKE CITY
Canal Wildlife Area
Lums Pond State Park
Pea Patch Island
Fort Delaware State Park
DELAWARE CITY
Augustine Wildlife Area
Port Penn
To Cecilton
St Augustine
Armstrong
ODESSA
MIDDLETOWN
TOWNSEND
Taylors Corner
To Price
To Dover, Salisbury, Norfork and Delmarva Peninsula

Mr. **Nowak**. We now want to bring before the committee Congressman Brown of California and Congressman McCandless of California. We will continue to have your witness before we break; will that be all right?

Mr. **Stangeland**. Mr. Chairman, while you're waiting for this panel, Congressman Bateman was here, could not stay and asks that his statement be made a part of the record rather than coming in in person.

Mr. **Nowak**. Without objection, so ordered.

[Mr. Bateman's prepared statement follows:]

STATEMENT OF THE HONORABLE HERBERT H. BATEMAN

BEFORE THE PUBLIC WORKS AND TRANSPORTATION WATER RESOURCES SUBCOMMITTEE

MARCH 7, 1990

THANK YOU FOR ALLOWING ME THE OPPORTUNITY TO SPEAK THIS MORNING IN SUPPORT OF REAUTHORIZING THREE UNCONSTRUCTED ANCHORAGES. THESE ANCHORAGES -- ONE LOCATED OFF SEWELLS' POINT AND TWO OFF NEWPORT NEWS -- HAVE BEEN PART OF THE PLAN FOR THE PORT HAMPTON ROADS NAVIGATION PROJECT FOR MANY YEARS, BUT UNTIL NOW HAVE NOT BEEN NEEDED. HOWEVER, GROWTH IN THE AMOUNT OF CARGO HANDLED AT THE HAMPTON ROADS PORTS OF NEWPORT NEWS, NORFOLK AND PORTSMOUTH HAS BEEN DRAMATIC THROUGHOUT THE 1980'S AND THE OUTLOOK FOR THE 1990'S IS VERY POSITIVE. THEREFORE THE LOCAL PORT COMMUNITY IS VERY CONCERNED THAT THESE ANCHORAGES REMAIN AUTHORIZED AND AVAILABLE FOR CONSTRUCTION IF NEEDED IN THE FUTURE.

I CORRESPONDED WITH THE COMMITTEE LEADERSHIP ON THIS PROJECT LAST YEAR, AND I AM HOPEFUL THAT YOU WILL SEE YOUR WAY CLEAR TO APPROVE THE REAUTHORIZATION OF THESE VITAL COMPONENTS OF THE HAMPTON ROADS PORTS PROJECT. AGAIN, THANK YOU FOR YOUR CONSIDERATION. PLEASE LET ME KNOW IF YOU HAVE ANY QUESTIONS OR NEED ADDITIONAL INFORMATION.

Mr. **Nowak**. We will now turn to Congressman Brown.

Mr. **McCandless**. Good morning, Mr. Chairman.

Mr. **Nowak**. Good morning.

Mr. **McCandless**. We have had a caucus here and it was a very serious way of trying to align this presentation and I think we've reached an agreement. Seniority prevailed, in all facetiousness.

Congressman Brown will lead off and then I will attempt to address the issue also. We have at the table with us Mr. Ken Edwards who is general manager and chief engineer of the Riverside County Flood Control and Water Conservation District, the primary agency that has responsibility in this area for flood control.

Congressman Brown.

NORCO BLUFFS PROJECT, CA

TESTIMONIES OF HON. GEORGE E. BROWN, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA; HON. ALFRED A. McCANDLESS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA; AND KEN EDWARDS, CHIEF OF ENGINEERS, RIVERSIDE COUNTY FLOOD CONTROL PROJECT, RIVERSIDE, CA

Mr. **Brown**. Thank you, Mr. McCandless.

Thank you, Mr. Chairman.

I think we'll all be brief. What we are speaking to is a request to authorize a small addition to the Santa Ana River project which is I think still the largest flood control project that the Corps has—covering San Bernardino, Riverside and Orange Counties in southern California. What we are proposing is an additional authorization for a project known as the Norco Bluffs project.

May I explain to the committee in case you're curious about my being involved in this, when we began work on the Santa Ana project—the authorization to the Santa Ana project—this area was in my congressional district. It was up until 1982. It very likely will be again in 1992 and it therefore is incumbent upon me to protect the interests of my past and future prospective constituents by supporting this project.

I did 10 years ago and I do again today and I will again in the 1990s. What you have here is a project which is in every way justified, on cost benefits and other, but it is denied for technical reasons. Although the Corps of Engineers have studied this in some detail, the Norco Bluffs project has not been made a part of the Santa Ana project because the damage would be the result of erosion of the bottom of the Santa Ana River bank, rather than the flooding of the bank from the top. It seems to me completely ridiculous that this is the case, but apparently it is.

Let me illustrate the significance of this project. After the Santa Ana project is completed, in all probability the most damage done by a major flood will be in the Norco Bluffs area, because while the work of the corps will protect most of the rest of the Santa Ana mainstem from damage, it will not prevent the continued erosion of these 50- to 75-foot high bluffs. This area is the site of some rather nice houses which could be lost—as many as 50 or so of these houses—in the event that the erosion of the bluffs continues.

It seems to me that this is a very anomalous situation in which the major damage from a prospective flood would be to a site which the corps says they can't include in a flood control project. I'm asking the committee to support the authorization of this—as either a part of the Santa Ana project, or as a separate authorization. We must give the corps the authority to do what they have already concluded is a cost effective project, and one which is very badly needed in this area.

I urge favorable consideration by the committee.

Mr. **Nowak**. Thank you very much.

Mr. McCandless.

Mr. **McCandless**. Mr. Chairman, I have a couple of items to add to Mr. Brown who very eloquently explained the problem. I would ask consent to have my remarks entered into the record in full.

Mr. **Nowak**. Without objection, so ordered.

Mr. **McCandless**. Since the 1969 major storm, the flooding in that area has completely compromised those various and sundry activities that the Corps of Engineers had put into the stream to prevent the erosion or the bluffs from dropping. So they have become ineffective. We have lost one home. A number of others have cracked foundations and other types of damage at the top of the bluff.

The Hamner Avenue Bridge, which is State Route 31 in the area, is in danger of being damaged should the structures and vegetation continue to fall, Mr. Chairman, into the Santa Ana River and plug the river downstream. We also have an undermining situation at the top of the bluff which threatens water, sewer, telephone and gas lines.

So to summarize, the development, private as well as public utility-oriented at the top of the bluff, is in the process of eroding and falling over the side as time passes because of the undermining below. This is a situation which has to be addressed in some form or another due to what we have at the top of the bluff, as Mr. Brown and I have outlined.

I would ask that the committee agree with what it is we're asking for, a proposed 5,500-foot levee along the Santa Ana Bluffs at Norco to stabilize the bluffs and save the damage and property loss which we have referred to.

Mr. **Nowak**. Thank you very much.

Mr. Edwards.

Mr. **Edwards**. Mr. Chairman, I'm here representing Supervisor Melba Dunlap who is chairman of my Board of Supervisors.

I would just like to add that between 1969 and 1980, we've had three major flood events which caused—up to 90 feet of property was lost through collapse of the bluffs and as was indicated, one home was destroyed and we have a potential over the next 25 years of up to 50 homes being lost.

A street is in danger. Part of the street has had to be closed, and other utilities are in danger of collapse. In working with the Corps of Engineers, they indeed evaluated the problem and came up with a solution but it costs about $6.5 million and they have determined it's got a favorable benefit cost ratio.

The problem they had was the fact that they didn't consider this overland flooding and were reluctant to proceed with the project. As you heard, the Santa Ana River mainstem has been authorized.

There are several elements to that project and subsequent to its authorization by the Congress there was an addition of San Mateo Creek in Redlands as an added element.

We would like to see the Norco Bluffs provided as an added element to the overall $1 billion-plus Santa Ana project. Either that or some other means by which the corps will proceed with a solution to this problem.

We are prepared to meet our obligations of the 25 percent cost share. So we urgently request your consideration in this matter.

Mr. NOWAK. Thank you very much.

We've been through this, Mr. Brown, before and certainly, I have great sympathy for this situation that the corps looks at as a little outside of what they want to participate in. I made the statement before that we're trying to look at these projects in terms of the benefits that are derived and make the investments, whether or not it complies with the very formal, restricted kind of view of the corps mission that has been out there for many years. In some instances, it's been looked upon as too narrow and we've got to start to broaden our perspective, especially in the areas where you've got a favorable cost benefit ratio.

I think George, we've looked at this from other perspectives as well in science and technology when you look at those type of investments. So certainly, I will take another very close look at this and probably it will mean more of your time sitting with us and perhaps members of the corps to review this project once again.

Mr. BROWN. Mr. Chairman, of course we'd be glad to sit with you at any length that you wish. Obviously the corps—and I think quite properly—is trying to be conservative in the way they approach these projects. Otherwise, there would be difficulty in setting limits on some of these expenditures. But I think in this case, the corps would agree with us that this is a useful, desirable, cost beneficial project which could quite easily be considered as an element of the Santa Ana, just as the Oak Street Drain was included, because basically they achieve the purpose which the Congress wishes.

Mr. MCCANDLESS. If I may, Mr. Chairman, I think that you have hit the nail on the head. It's an element of interpretation that the corps has in its approach to this aspect of the Santa Ana River and certainly, I can appreciate their position but as has been said, the entire project of the Santa Ana River and what it will do in its final form almost demands that this be addressed as a part of that.

Mr. NOWAK. As a part of that. Yes, I agree.

Congressman Stangeland.

Mr. STANGELAND. All I have to say is that I think the controversy here with the corps is that the corps does not deal in erosion projects, but flood control, but my question is, would there be erosion if there weren't floods? Of course, the answer is no and so, you know, it's which came first, the chicken or the egg, I guess. I think you have a sympathetic audience here.

I had a similar problem in my district where the river was eroding a bank and risking a $1 million bridge that Federal moneys had paid for. It was a very minor project compared to what this one is but it took me about seven years to finally get the corps out there to do the project and make sure that that erosion wouldn't continue and damage that highway and lose that bridge.

So, we'll look at it and give you the best benefit possible.

Mr. **Brown**. Thank you.

Mr. **McCandless**. Thank you, Mr. Chairman.

[Mr. Brown's prepared statement follows:]

Congressman George E. Brown, Jr.'s
Statement before the Public Works and Transportation
Subcommittee on Water Resources

March 7, 1990

Mr. Chairman, thank you for this opportunity to testify today. I request the Subcommittee's support for a $6.5 million project that would address a serious flood damage problem along the Santa Ana River in the city of Norco, California. Although the problem area is now located in the Congressional District represented by Rep. Al McCandless, I became involved in the issue eleven years ago when the area was in my district.

The city of Norco is situated on a bluff which has been breaking down since floods in 1969 destabilized the Santa Ana river bank, undermining the base of the slope. Flooding in 1978 and 1980 further undercut the banks, causing considerable portions of the bluff to collapse into the river. One residence has already fallen into the river bed, and a street running along the bluffs has been closed. The next major flood could easily cause enough additional damage to permanently destroy at least 50 homes in Norco, as well as water, sewer, and utility lines. The bluffs have been steadily retreating for 20 years at a rate of approximately 1.5 feet annually, although 30 to 40 feet have been lost in a single year as heavy rains swelled the river.

In October 1988, the Los Angeles District of the Corps of Engineers (COE) completed a Reconnaissance Assessment Report for the Norco Bluffs. This report recommends an estimated $6.5 million in construction to stabilize the base of the bluffs. The report concluded that such construction has a positive benefit-cost ratio of 1.14 to one. The Riverside County Flood Control District, as a local sponsor, is fully prepared to meet its cost sharing burden for the construction.

I respectfully request that this subcommittee authorize $6.5 million for construction along the base of the bluffs. I defer to the Public Works and Transportation Committee to determine the best means to authorize the project. Regardless of how the funding is authorized, it is critical that we take steps soon to prevent a potential disaster along the Santa Ana River bed in Norco, California.

We have the opportunity to save money by preventing a disaster instead of responding to one. I hope that I can count on your support for my request.

[Mr. McCandless' prepared statement follows:]

Testimony of the Honorable Al McCandless
before the Subcommittee on Water Resources
House Committee on Public Works and Transportation
March 7, 1990

Thank you, Mr. Chairman. I appreciate your invitation to appear and am pleased that the Committee has agreed to look into the hazardous situation at the Norco Bluffs which are located along the Santa Ana River, in Riverside County, California.

A series of natural events is disintegrating the sheer face of the Norco Bluffs. Since 1969, major storms have caused rampant flooding up and over the lower northern banks of the Santa Ana River.

Although the floodwaters do not overflow the very high southern banks of the river in the vicinity of the city of Norco, the effects there can be even more devastating.

Along approximately one mile of the Norco Bluffs, the high waters churn against the toe of the steep bank, causing unstable conditions and Bluff undercutting.

As the banks fall into the river, private and public property is lost and endangered. After years of deterioration, some 50 homes are precariously close to a vertical drop of 80-90 feet in several places. One home has already been lost. Other houses close to the bluff have suffered foundation cracks and other problems caused by the continuing disintegration problem.

The Corps of Engineers has built revetments of rock and rubble to prevent further undercutting, but these measures are temporary at best.

The original 2100-foot long revetment, built by the Corps after the 1969 flood, lasted only five years before it was virtually useless against the river flows. In its present deteriorated state, this protective barrier would last only a few days against a major Santa Ana River flood. Additional storms in 1979 and 80 further compounded the problem. Since then, long term bluff retreat has accelerated as the bluffs try to return to a stable grade. As the lower part of the bluff is washed away by flooding water, the higher parts of the bluff, supporting houses and structures, eventually fall into the river.

In addition to the loss of private homes, about 3/4's of a mile of River Drive is in danger. Utilities affected by continuing undermining include water, sewer, telephone and gas lines. The Hamner Avenue Bridge (State Route 31) is in serious danger of being damaged should structures and vegetation continue to fall into the Santa Ana and plug the river downstream.

The need to protect the Norco Bluffs is urgent and severe. I hope you will agree to authorize the construction for this economically viable project proposed by the Corps of Engineers. Construction of the proposed 5,500 foot levee along the Santa Ana Bluffs at Norco would greatly stabilize these bluffs and save thousands of dollars of damage and property loss. I strongly support the project proposal.

1990

STATEMENT

RIVERSIDE COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT

REGARDING

SANTA ANA RIVER AT NORCO BLUFFS

TO:UNITED STATES HOUSE OF REPRESENTATIVES
PUBLIC WORKS AND TRANSPORTATION
SUBCOMMITTEE ON WATER RESOURCES

HONORABLE HENRY J. NOWAK
CHAIRMAN

KENNETH L. EDWARDS
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RIVERSIDE COUNTY FLOOD CONTROL AND
WATER CONSERVATION DISTRICT
RIVERSIDE, CALIFORNIA 92502

March 5, 1990

Honorable Henry J. Nowak
Chairman, Sub-Committee on Water Resources
of the Committee on Public Works and Transportation
House of Representatives
B370-A Rayburn House Office Building
Washington, D.C. 20515

Dear Congressman Nowak:

Submitted herewith is our official statement and report regarding the Santa Ana River at the Norco Bluffs. This statement and report is for the record of the hearing conducted by the Sub-Committee on Water Resources held on March 7, 1990.

The problems set forth in the report are of great concern to the City of Norco, the Flood Control District and the Board of Supervisors of Riverside County.

Favorable support by the Committee of our request will be very much appreciated.

Very truly yours,

Melba Dunlap
MELBA DUNLAP, Chairman
Board of Supervisors

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SANTA ANA RIVER MAINSTEM AT NORCO, CALIFORNIA

The Santa Ana River courses past the City of Norco, California along the City's northern border. The left bank of the river at this location is defined by a high bluff ranging from 46 to 96 feet above the streambed. The banks of the bluff were relatively steep but prior to the mid-1950's were relatively stable. Norco was an unincorporated community prior to 1964 and the area along the bluffs was relatively undeveloped until the 1960's and 1970's.

Encroachment along the north (right) bank by agricultural activities has had an effect of forcing the river more toward the left bank. During major flooding along the Santa Ana River in January and February of 1969, river flows attacked the left bank of the river and scoured and undermined the high banks. Considerable sections of the bluff collapsed into the river - the materials were washed on downstream into Prado Reservoir. This retreat of the bluffs caused alarm to homeowners near the river bank and City officials. In response to these concerns the Army Corps of Engineers under the emergency powers authority constructed a 3,000 foot long rock and wire revetment near the base of the bluffs to try to minimize further undercutting and slope failure of the bluffs. Subsequent flows in the river demonstrated this effort to be ineffective. Some of this revetment is partially or completely inundated by river bottom silts.

During the floods of February and March 1978, the river again attacked the bluffs, causing further retreat of the bluffs. The City of Norco placed a protective chain link fence along River Road near the bluffs to protect the public from danger. The fence had to be moved farther back in 1980 due to additional river action on the bluff.

During the 1969 floods it is estimated that up to 50 feet of bluff retreated and in 1980 another 30 to 40 feet of bluff retreated. One residential structure was undermined and had to be abandoned and demolished before it fell into the river. The Corps of Engineers estimate at least 50 homes could be lost to continued bluff retreat due to action of the Santa Ana River along the bluffs. Public utilities such as water, sewer, gas, electric and communication facilities are in danger of rupture and loss due to this bluff retreat.

SOLUTION

The Los Angeles District of the Corps of Engineers has done a Reconnaissance Assessment of the problem and have proposed a solution with a total estimated cost of about $6,500,000. They determined that the project would have a benefit cost ratio of 1.14 to 1.00; thus the project is economically justified as required by law.

A request was made to consider a project for protection of the bluffs under the Small Flood Control Project

Authority under Section 205 of the Flood Control Act of 1948. The Corps believes that a project of this nature is not appropriate under the Section 205, Small Project Continuing Authority. However, there is a Congressionally authorized project for the Santa Ana River Mainstem, which includes improvement along the Santa Ana River Channel in Orange County, enlarging Prado Dam, constructing a new dam at Seven Oaks in San Bernardino County, enlarging the Hill Creek levees near Redlands, California, improvement of Oak Street Drain in Corona, California and improvement of Santiago Creek in Orange County. Subsequent to that authorization, improvements to San Timoteo Creek near Redlands, California were included by the Congress as an authorized element of the Santa Ana River Mainstem Project.

The Norco Bluffs are located along the mainstem of the Santa Ana River just upstream of the entrance to Prado Dam reservoir. Therefore, because the bluffs are located on the Santa Ana Mainstem and the undercutting of the bluffs is due to flooding conditions on the Santa Ana, it would seem logical to authorize the Norco Bluffs protection project as an element of the Santa Ana River Mainstem Project. However, if Congress prefers to authorize construction of the plan by some other means or authority rather than as an element of the overall Santa Ana Mainstem authorization, that would certainly be acceptable to Riverside County and the City of Norco. What we are asking for is a recognition that there is a federal interest in addressing this problem and that Congress authorizes construction of a flood damage prevention project for Norco Bluffs to address this critical issue.

STATEMENT OF THE HONORABLE LEON E. PANETTA
BEFORE THE HOUSE WATER RESOURCES SUBCOMMITTEE
MARCH 7, 1990

Mr. Chairman, thank you for giving me the opportunity to appear before your panel to talk to you about two important issues. The first one is one that you and the rest of the Committee are already aware of, the dangerous entrance to Morro Bay Harbor. The second issue is the authorization of a flood control project on the Pajaro River in California.

Let me take a moment to discuss the problem at the entrance to Morro Bay. The Morro Bay Harbor entrance was designed to serve as a base of naval operations during World War II. Design and construction of the breakwaters was hurriedly accomplished in 1942-43. Since that time, rehabilitation projects have been performed by the Army Corps of Engineers in 1964 and 1984-85. Shoaling in the harbor entrance has resulted in the frequent formation of enormous breaking waves resulting in numerous deaths and accidents over the last several years. Since 1964, at least 21 individuals have lost their lives attempting to navigate the entrance. The most recent death occurred on November 9, 1987, and involved a man widely regarded as one of the area's most experienced and careful commercial fisherman. In addition, there have been terrifying accidents in which loss of life has been avoided only by heroic rescue efforts. The most dramatic of these accidents was the capsizing in 1983 of the San Mateo, a 45-foot whale-watching vessel carrying 23 schoolchildren and several adults.

It is ironic, in light of these deaths and accidents, that Morro

Bay Harbor is the only port of refuge between Monterey and Santa Barbara, along the often treacherous waters of the California coast. The harbor has been so designated by the U.S. Coast Guard and the U.S. Army Corps of Engineers. Such a port designation means that vessels can take shelter during heavy weather and where facilities for repair/provisioning are available. However, the entrance to this harbor does have a history of being closed to navigable traffic an average of over 23 days per year. The Harbor Manager reported this week that many vessels did not leave the Harbor for a two week period this winter because of hazardous conditions.

The Corps has completed a reconnaissance report and is proceeding with a feasibility study regarding Morro Bay Harbor. The feasibility study is scheduled for completion this year. I have introduced legislation, H.R. 1357, to direct the U.S. Army Corps of Engineers to take action to remedy an extremely dangerous condition at the entrance to Morro Bay Harbor in California. Similar language was included in the House passed version of the Water Resources Development Act of 1988. At that time, you and the other Members of the Public Works and Transportation Committee recognized the importance and necessity of this work. I am requesting that this same sort of language be included the 1990 Water Resources Authorization bill.

This action is critical. Unless remedial action is taken as soon as possible, additional lives will be needlessly lost and endangered. In addition, concern within the fishing and boating community about the dangerous conditions in the Harbor may also result in a diminution in use of the Harbor, causing economic harm to Morro Bay and those who depend on the Harbor for their livelihood.

The other issue that I would like to discuss is the reauthorization of a flood control project in Santa Cruz, California. I wrote to you last year requesting your assistance in gaining an extension of an authorization for this project. As you will recall, the project was scheduled to be deauthorized in December 1989. Because the Committee was not planning to take action on a Water Resources bill until after the passage of this date, you indicated that the project could be reauthorized this year.

The project, initially started in 1966, was intended to identify alternatives for increasing flood protection along the Pajaro River. At that time, a plan to provide 500 year flood protection was developed. However, because of local concerns, including cost and environmental impact the project was halted in 1976. No further work has been undertaken since to provide flood protection to this sensitive area.

Recently, local officials have begun working together to address this great need. In working with the Corps, the County of Santa Cruz and the City of Watsonville have discovered this old project, which they believe is the proper course for prompt attention to the flooding threat. Continuing work on an existing project would allow construction to begin much sooner.

Thousands of residents of Watsonville live with the threat that flooding may occur at any time and destroy their homes. They know that there is little flood protection along the Pajaro River. Extending the authorization will provide these families with hope that adequate flood protection will be developed and that their homes and their lives will not be threatened by uncontrolled flooding anymore.

It is very important that flood protection steps be taken along the Pajaro River. The project would entail developing both long-term flood protection and immediate maintenance and flood protection needs. By extending the authorization on this existing project valuable time can be saved and work toward a permanent solution to the flooding threat can be started.

Thank you, Mr. Chairman for giving me the chance to discuss these two very important water projects. I appreciate your continued interest and assistance in the very real problems facing my constituents in California.

Mr. **Nowak**. We now have Congressman Lagomarsino and if you'd like to proceed and introduce your guests.

VENTURA COUNTY PROJECT

TESTIMONY OF HON. ROBERT J. LAGOMARSINO, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. **Lagomarsino**. Thank you, Mr. Chairman and members of the committee. Thank you for giving me the opportunity to appear before you on behalf of several projects in my district.

I'd like to briefly summarize my statement and ask that it be included in the record together with some other information.

Mr. **Nowak**. Without objection, so ordered.

Mr. **Lagomarsino**. Mr. Chairman, I'm asking for consideration of four projects for inclusion in the Water Resources Development Act of 1990. Two of them are contained in bills currently before your committee, H.R. 2045 and H.R. 2046. H.R. 2045 would authorize the Secretary of the Army to develop and install a flood-warning system for the Santa Clara River in Ventura and Los Angeles Counties, California.

I introduced this bill at the request of the Army Corps of Engineers which has a similar project under construction on the Whitewater River in California. I understand the cost of the project would be something like $850,000. The project is needed to prevent loss of life and property resulting from flooding in the Santa Clara River watershed such as that which occurred following the collapse of the San Francisquito Dam on the system earlier this century in which scores of people did lose their lives.

H.R. 2046 would authorize the Corps of Engineers to provide flood fight assistance to Ventura County's flood control district with respect to Santa Paula Creek. Santa Paula Creek is a tributary to Santa Clara River. Congress previously approved a flood control project on Santa Paula Creek, but it was halted by a court order in 1975.

A partially-completed structure now rests in the creek posing a serious threat of flooding, potential liability and so on. As a result of the delay caused by the court order, the cost benefit ratio of the original project has changed and it's probably the case that a full project can't be justified at this time.

The corps and the County Flood Control District are currently considering alternatives to the construction of the full project, including a scaled-down project and/or a commitment by the Corps to provide flood fight assistance under certain high flow conditions. Inclusion of this bill in your committee bill would allow the corps and the County Flood Control District to finalize and implement a solution to the current state of the project.

The third project—again at the Corps' request—that I would ask the committee to consider, involves a scaled-down project on Carneros Creek near the Santa Barbara Airport in Santa Barbara County and I would ask the committee to authorize that project so this area can be protected from floods.

Finally but not least, Mr. Chairman, I request authorization of a breakwater improvement project at Ventura Harbor, California designed to reduce or eliminate hazardous shoaling and dangerous wave conditions at the entrance of the harbor. The corps has been dredging the entrance annually, at a cost in excess of $1 million a year. This project will cut the annual dredging cost in half and guarantee full-time use of the harbor by the National Park Service and other users.

I'd like to at this time introduce the chairman of the Ventura Port District, Richard Hambleton, Jr., and the general manager, Richard Parsons, who will provide more detail on this project.

Mr. Chairman, that concludes my statement and I would ask that the additional materials be included. I would ask your favorable consideration and I would also ask that the two representatives of the Ventura Port District be permitted to testify at this point.

Mr. **Nowak**. Without objection, all your requests are granted and you may proceed as you desire.

TESTIMONY OF RICHARD HAMBLETON, JR., CHAIRMAN, BOARD OF PORT COMMISSIONERS, VENTURA PORT DISTRICT, ACCOMPANIED BY RICHARD PARSONS, GENERAL MANAGER, VENTURA PORT DISTRICT, VENTURA HARBOR

Mr. **Hambleton**. Fine. Thank you very much.

Mr. Chairman, members of the subcommittee, I am Chairman of the Ventura Port District and we are pleased and honored to be here today to testify on behalf of the project at Ventura Harbor which we hope you will authorize in the Water Resources Development Act of 1990.

With me today is the general manager of the Ventura Port District, Richard Parsons, seated to my right. Ventura Harbor is shown on the aerial photograph which I believe you have. It is a manmade and commercial and recreational harbor on the southern California coast. It lies roughly 65 miles northwest of Los Angeles.

Put simply and very briefly, the entrance to our harbor in Ventura—the problem is that it is the most dangerous in southern California. Vessel casualties are unfortunately a regular occurrence. This state of affairs results from the fact that dangerous shoal and wave conditions can develop in the entrance very suddenly and quite frequently. Such conditions then cause vessel groundings and capsizings, a few of which are illustrated in the photographs that you have. Fortunately, we have never incurred an actual death in that entrance despite the number of injuries.

The improvements that are now proposed by the Corps of Engineers are the result of nearly six years of study of the dynamic oceanographic processes associated with the problems at the harbor entrance. In November 1986, a reconnaissance report released by the corps concluded that cost-effective solutions to the problems were feasible and recommended proceeding with a more detailed feasibility study.

The final feasibility study was at last released last June, in June, 1989. The Board of Engineers for Rivers and Harbors will be reviewing the proposed project tomorrow. We expect a favorable report from the Chief of Engineers by June of this year. Briefly, the project is described as a 250-foot spur groin at the end of the north jetty to improve the deflection of literal sand flows into a sand trap at the northwest corner of the harbor. The second feature is a 300-foot dogleg extension to the south end of the detached breakwater to provide improved wave sheltering for vessels transiting the entrance.

Also included is deepening and extending the entrance channel and the sand trap to provide for improved weight-height attenuation and for additional sand storage.

Finally, the project includes a 650-foot long groin on the south beach approximately 1,000 feet down coast from the entrance to the harbor. The purpose of this groin is to trap material coming from the south.

The construction of the above features will also place maintenance dredging of the entrance channel and the sand areas on a biennial cycle rather than the present annual cycle. The fact that this results in $433,000 reduction in average annual maintenance costs becomes a key component in the 1.8 to 1 benefit cost ratio justifying the $6.5 million project.

The port district, as a local sponsor, is committed to funding 20 percent of this project cost. The annual average costs for the project are estimated at $615,000. Average annual benefits representing primarily savings and maintenance costs and commercial fishing losses are estimated at $1.17 million.

The improvement plan that the corps has recommended is vital to the future viability of our harbor in Ventura. I appreciate—the subcommittee's usual practice is to include projects in its authorization bills that have received a favorable report from the Chief of Engineers. I'm confident however that such a report will be released in June of this year. Thus, we believe that the plan of improvement for Ventura Harbor will conform to the subcommittee's requirements prior to the finalization of the Water Resources Development Act of 1990. Your support of this project will be appreciated. We request that this testimony be included in the record, and Mr. Chairman, that concludes my testimony and we'd be happy to answer any questions should you have any.

Mr. **Nowak**. Fine. Do you have a further statement?

Mr. **Parsons**. Mr. Chairman, just briefly, I just want to thank the subcommittee in my capacity as general manager of the Ventura Port District but also as chairman of the California Marina Affairs and Navigation Conference or CMANC as you all may know it. I thank you on behalf of both organizations for the support this subcommittee in particular and the Congress in general has been over the years to the many vital navigation projects throughout California and we are indeed indebted to you.

I also want to take this opportunity to extend an invitation to you to attend this year's Golden State Luncheon which will be on April 5 in the Cannon Building Caucus Room. CMANC hopes that we can all see you there.

Thank you.

Mr. **Nowak**. Thank you very much. We have a multitude of requests not only for flood control but for other projects that emanate from California and the West Coast and I think some of it has been of course a tremendous increase in traffic that has occurred in economic activity which drives this system forward. Yours is certainly one that seems to fit in there.

Let me ask you on the breakwall, how large of a structure is that in its conception now?

Mr. PARSONS. The extension to the breakwater would be 300 feet long and I think it has an elevation of plus 14, probably.

Mr. NOWAK. They have a cost benefit ratio associated with the project?

Mr. PARSONS. It's 1.8 to 1.

Mr. NOWAK. That one would be—is getting through the process, you anticipate we get a chief's report in June?

Mr. PARSONS. That's right. We will be before the Board of Rivers and Harbors tomorrow and the chief's report, we're told, will be out in June.

Mr. NOWAK. All right. That process is going smooth for you; is that right?

Mr. PARSONS. Yes, that's right. We are in total agreement with the corps and there are no disagreements at all.

Mr. NOWAK. Okay, and you've got your cost sharing.

Mr. PARSONS. Right. We're committed to the cost sharing.

Mr. LAGOMARSINO. Mr. Chairman, as I pointed out earlier, I think it's fair to say the corps supports not only this one but two of the other ones and we're working on the other one trying to reach agreement. They do agree on trying to reach agreement on the question of what do you do about flood control on the Santa Paula Creek.

Mr. NOWAK. I see. Fine. We'll look forward to receiving those additional reports and let me turn to Arlan Stangeland.

Mr. STANGELAND. I have no questions. I viewed this a year ago?

Mr. PARSONS. That's correct, sir.

Mr. STANGELAND. Certainly, I think I have a fair understanding and we'll welcome that chief's report. It will expedite, I think, your concerns much better. We tried to do it two years ago and because of a lack of a report being far enough up the line, we were unable to do the harbor part but did the groin, as I recall.

Is that groin still a problem?

Mr. PARSONS. The groin was just finished last month.

Mr. STANGELAND. OK.

Mr. PARSONS. I do thank you for your personal attention at looking at this project and we certainly understand why it could not be included in the bill two years ago. We have no problem with that.

Mr. STANGELAND. Thank you.

Mr. LAGOMARSINO. We certainly do appreciate your help on the groin and although we didn't end up with everything we wanted, we came close.

Mr. NOWAK. Well, that's the least we achieve here.

Mr. LAGOMARSINO. That's right.

Mr. NOWAK. Thank you very much, Congressman, for all your help.

Mr. LAGOMARSINO. Thank you.

Mr. PARSONS. Thank you.

[Mr. Lagomarsino's prepared statement and H.R. 2045, H.R. 2046 with attachments follow:]

TESTIMONY OF

HON. ROBERT LAGOMARSINO

BEFORE THE

SUBCOMMITTEE ON WATER RESOURCES

HOUSE COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

MARCH 7, 1990

HON. ROBERT LAGOMARSINO
MARCH 7, 1990
PAGE ONE

MR. CHAIRMAN, MEMBERS OF THE COMMITTEE, THANK YOU FOR THE OPPORTUNITY TO APPEAR BEFORE YOU ON BEHALF OF SEVERAL PROJECTS IN MY DISTRICT. SINCE TIME IS LIMITED, I WILL BRIEFLY SUMMARIZE MY TESTIMONY AND I REQUEST THAT THE FULL TEXT OF MY REMARKS BE INCLUDED IN THE RECORD.

MR. CHAIRMAN, I APPEAR BEFORE YOU TO ASK YOUR CONSIDERATION OF FOUR PROJECTS FOR INCLUSION IN THE WATER RESOURCES AUTHORIZATION LEGISLATION. TWO OF THE PROJECTS ARE CONTAINED IN BILLS CURRENTLY BEFORE YOUR COMMITTEE, H.R. 2045 AND H.R. 2046.

H.R. 2045 WOULD AUTHORIZE THE SECRETARY OF THE ARMY TO DEVELOP AND INSTALL A FLOOD WARNING SYSTEM FOR THE SANTA CLARA RIVER, IN VENTURA AND LOS ANGELES COUNTIES, CALIFORNIA. I INTRODUCED THIS BILL AT THE REQUEST OF THE ARMY CORPS OF ENGINEERS, WHICH HAS A SIMILAR PROJECT UNDER CONSTRUCTION ON THE WHITE WATER RIVER IN CALIFORNIA. I UNDERSTAND THE COST OF THE SANTA CLARA RIVER SYSTEM WILL BE IN THE RANGE OF $850,000. THE PROJECT IS NEEDED TO PREVENT LOSS OF LIFE AND PROPERTY RESULTING FROM FLOODING IN THE SANTA CLARA RIVER WATERSHED, SUCH AS THAT WHICH OCCURRED FOLLOWING THE COLLAPSE OF THE SAN FRANCISQUITO DAM ON THIS SYSTEM EARLIER THIS CENTURY.

H.R. 2046 AUTHORIZES THE CORPS OF ENGINEERS TO PROVIDE FLOOD FIGHT ASSISTANCE TO THE VENTURA COUNTY FLOOD CONTROL DISTRICT WITH RESPECT TO SANTA PAULA CREEK, CALIFORNIA. SANTA PAULA CREEK IS A TRIBUTARY TO THE SANTA CLARA RIVER. CONGRESS PREVIOUSLY APPROVED A FLOOD CONTROL PROJECT ON SANTA PAULA CREEK, BUT IT WAS HALTED BY A COURT ORDER IN 1975. A PARTIALLY-COMPLETED STRUCTURE NOW RESTS IN THE CREEK, POSING A SERIOUS THREAT OF FLOODING.

AS A RESULT OF THE DELAY CAUSED BY THE COURT ORDER, THE COST BENEFIT RATIO OF THE ORIGINAL PROJECT HAS CHANGED, AND THE FULL PROJECT CANNOT BE JUSTIFIED. THE CORPS AND THE COUNTY FLOOD CONTROL DISTRICT ARE CURRENTLY CONSIDERING ALTERNATIVES TO CONSTRUCTION OF THE FULL PROJECT, INCLUDING A SCALED DOWN PROJECT AND/OR A COMMITMENT BY THE CORPS TO PROVIDE FLOOD FIGHT ASSISTANCE UNDER CERTAIN HIGH-FLOW CONDITIONS. INCLUSION OF H.R. 2046 IN THE COMMITTEE BILL WILL ALLOW THE CORPS AND THE COUNTY FLOOD CONTROL DISTRICT TO FINALIZE AND IMPLEMENT A SOLUTION TO THE CURRENT STATE OF THE PROJECT.

THE THIRD PROJECT I WOULD ASK THE COMMITTEE TO CONSIDER ALSO INVOLVES A SCALED-DOWN PROJECT, ON CARNEROS CREEK NEAR THE SANTA BARBARA AIRPORT, AND I WOULD ASK THE COMMITTEE TO AUTHORIZE THE SCALED-DOWN PROJECT SO THAT THIS AREA CAN BE PROTECTED FROM FLOODS.

FINALLY MR. CHAIRMAN, I REQUEST AUTHORIZATION OF A BREAKWATER IMPROVEMENT PROJECT AT VENTURA HARBOR, CALIFORNIA, DESIGNED TO REDUCE OR ELIMINATE HAZARDOUS SCHOALING AND DANGEROUS WAVE CONDITIONS AT THE ENTRANCE OF THE HARBOR. THE CORPS HAS BEEN DREDGING THE ENTRANCE ANNUALLY AT A COST IN EXCESS OF $1 MILLION A YEAR. THIS PROJECT WILL CUT THE ANNUAL DREDGING COST IN HALF AND GUARENTEE FULL-TIME USE OF THE HARBOR BY THE NATIONAL PARK SERVICE AND OTHER USERS. I WOULD LIKE TO INTRODUCE THE CHAIRMAN OF THE VENTURA PORT DISTRICT, RICHARD HAMBLETON, JR., AND THE GENERAL MANAGER, RICHARD PARSONS, WHO WILL PROVIDE MORE DETAIL ON THE PROJECT LATER.

MR. CHAIRMAN, THAT CONCLUDES MY ORAL TESTIMONY, AND I WOULD ASK THAT ADDITIONAL MATERIAL REGUARDING THESE PROJECTS BE INCLUDED IN THE RECORD. I REQUEST YOUR FAVORABLE CONSIDERATION OF THESE PROJECTS, AND I WILL BE HAPPY TO ANSWER ANY QUESTIONS.

I

101st CONGRESS
1st Session

H. R. 2045

To authorize the Secretary of the Army to develop and install a flood warning system for the Santa Clara River, Ventura and Los Angeles Counties, California.

IN THE HOUSE OF REPRESENTATIVES

April 18, 1989

Mr. Lagomarsino (for himself and Mr. Gallegly) introduced the following bill; which was referred to the Committee on Public Works and Transportation

---

A BILL

To authorize the Secretary of the Army to develop and install a flood warning system for the Santa Clara River, Ventura and Los Angeles Counties, California.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. INSTALLATION OF FLOOD WARNING SYSTEM.

The Secretary of the Army may develop and install a flood warning system for the Santa Clara River and its tributaries (including Santa Paula Creek), Ventura and Los Angeles Counties, California, at a total estimated cost of $500,000. Such system shall provide at a minimum base stations in both Ventura and Santa Paula, California.

SEC. 2. OPERATION AND MAINTENANCE.

Before installation of the flood warning system under section 1, non-Federal interests must agree to operate and maintain such system and to develop, maintain, and implement such emergency preparedness plans for flooding along the Santa Clara River and its tributaries in Ventura and Los Angeles Counties, California, as are satisfactory to the Secretary of the Army.

○

I

101st CONGRESS
1st Session

H. R. 2046

To authorize the Corps of Engineers to provide flood fight assistance to the Ventura County Flood Control District with respect to Santa Paula Creek, Ventura County, California.

IN THE HOUSE OF REPRESENTATIVES

April 18, 1989

Mr. Lagomarsino (for himself and Mr. Gallegly) introduced the following bill; which was referred to the Committee on Public Works and Transportation

---

A BILL

To authorize the Corps of Engineers to provide flood fight assistance to the Ventura County Flood Control District with respect to Santa Paula Creek, Ventura County, California.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. PROVISION OF FLOOD FIGHT ASSISTANCE.

Upon request of the Ventura County Flood Control District, the Secretary of the Army shall provide flood fight assistance to such district when such district's flood warning system predicts a peak flood flow of greater than 16,000 cubic feet per second in Santa Paula Creek, near Santa Paula, California.

SEC. 2. FLOOD FIGHT ASSISTANCE DEFINED.

For purposes of this Act, "flood fight assistance" consists (1) of providing the necessary personnel, equipment, and materials to provide maximum assistance to the Ventura County Flood Control District to reinforce the Santa Paula Creek banks and maintain a channel capacity of 16,000 cubic feet per second, and (2) of removing sufficient debris after a flood to restore the channel capacity of Santa Paula Creek between the north city limits of Santa Paula, California, and the Santa Clara River to 16,000 cubic feet per second.

○

GENERAL PROVISIONS, CORPS OF ENGINEERS

A project for flood control along Carneros Creek in the vicinity of Goleta, California is authorized for construction in accordance with plans described in the District Engineer's report, "General Reevaluation Report for Goleta and Vicinity, Santa Barbara County Streams, California," dated February 1988, at a total cost of $5,500,000, and with prior authorizations notwithstanding.

FACSIMILE HEADER SHEET
([illegible])

FROM (Name) R. Decker	OFFICE SYMBOL CESPL-PD-WB	TELEPHONE NO. (213) 894-4352	RELEASER'S SIGNATURE R. Decker		
TO (Name) John Dougherty	OFFICE SYMBOL	TELEPHONE NO. (202) 235-3096	# PAGES 1	PRECEDENCE	DTG
SUBJECT					

ENG FORM [illegible] 1 FEB 73

Another project within my district which I would hope to see authorized in your legislation is located at Ventura Harbor. Ventura Harbor has repeatedly experienced undesirable wave action and shoaling in the entrance channel. These problems have lead to at least 60 capsized or damage vessels since 1982 alone. In addition to the potential loss of life or property caused by this problem, the average annual damages to the harbor are estimated at $47,000. As a result of hazardous wave conditions in the harbor vessels are prevented from leaving or entering the harbor about 110 days per year.

The recommended plan includes construction of several jettys and an extension to the existing detached breakwater. The estimated cost is approximately $6,455,000 (October 1989 figures). Of the $6,455,000 the local share will be $1,280,000. Average annual costs for the recommended plan are estimated at $615,000 including $17,000 annual maintenance of the structures. Average annual benefits, primarily savings in maintenance costs and commercial fishing losses, are estimated at $1,170,000. After completion of the project it will no longer be necessary to dredge the harbor on an annual basis, but rather every other year.

The project will be reviewed tomorrow by the Board of Rivers and Harbors and is expected to be recommended for a final Chiefs report in June. You will be hearing more about this project later in this hearing from Richard Hambleton,Jr., Chairman of the Ventura Port District and Richard Parsons, General Manager of the Port District. If you have any further questions I am sure they will be happy to answer them for your. I hope you will look favorably on this very worthwhile project.

[Mr. Hambleton's prepared statement with photos follow:]

Statement of Richard S. Hambleton, Jr.

Chairman, Board of Port Commissioners
Ventura Port District

Before The Subcommittee on Water Resources
Committee on Public Works and Transportation
U. S. House of Representatives

March 7, 1990

Mr. Chairman and Members of the Subcommittee, I am pleased and honored to be here today to testify on behalf of a project at Ventura Harbor which I hope you will authorize in the Water Resources Development Act of 1990. With me today is Richard Parsons, General Manager of the Ventura Port District.

Ventura Harbor (see the attached color aerial) is a manmade commercial and recreational harbor on the Southern California coast about 65 miles northwest of Los Angeles. Simply put, the entrance to Ventura Harbor is the most dangerous in Southern California. Vessel casualties are, unfortunately, a regular occurrence. This state of affairs results from the fact that dangerous shoal and wave conditions can develop in the entrance very suddenly and frequently. Such conditions then cause vessel groundings and capsizings, a few of which are well illustrated in the attached photographs.

The improvements now proposed by the Corps of Engineers are the result of nearly six years of study of the dynamic oceangraphic processes associated with the problems at the harbor entrance. In November 1986 a Reconnaissance Report released by the Corps concluded that cost effective solutions to the problems were feasible and recommended proceeding with a more detailed Feasibility Study. The Final Feasibility Study Report was released in June 1989. The Board of Engineers for Rivers and Harbors will be reviewing the proposed project tomorrow. A favorable Chief of Engineers Report is anticipated in June of this year.

Project Description

The recommended project is designed to reduce shoaling and wave action in the entrance channel and involves the following components (see the attached color aerial photograph):

1) a 250 ft. spur groin at the end of the north jetty to improve the deflection of littoral sand flows into sand trap B;

2) a 300 ft. dogleg extension to the south end of the detached breakwater to provide improved wave sheltering for vessels transiting the entrance;

3) deepening and extending the entrance channel and sand trap A to provide for improved wave height attenuation and for additional sand storage volume; and

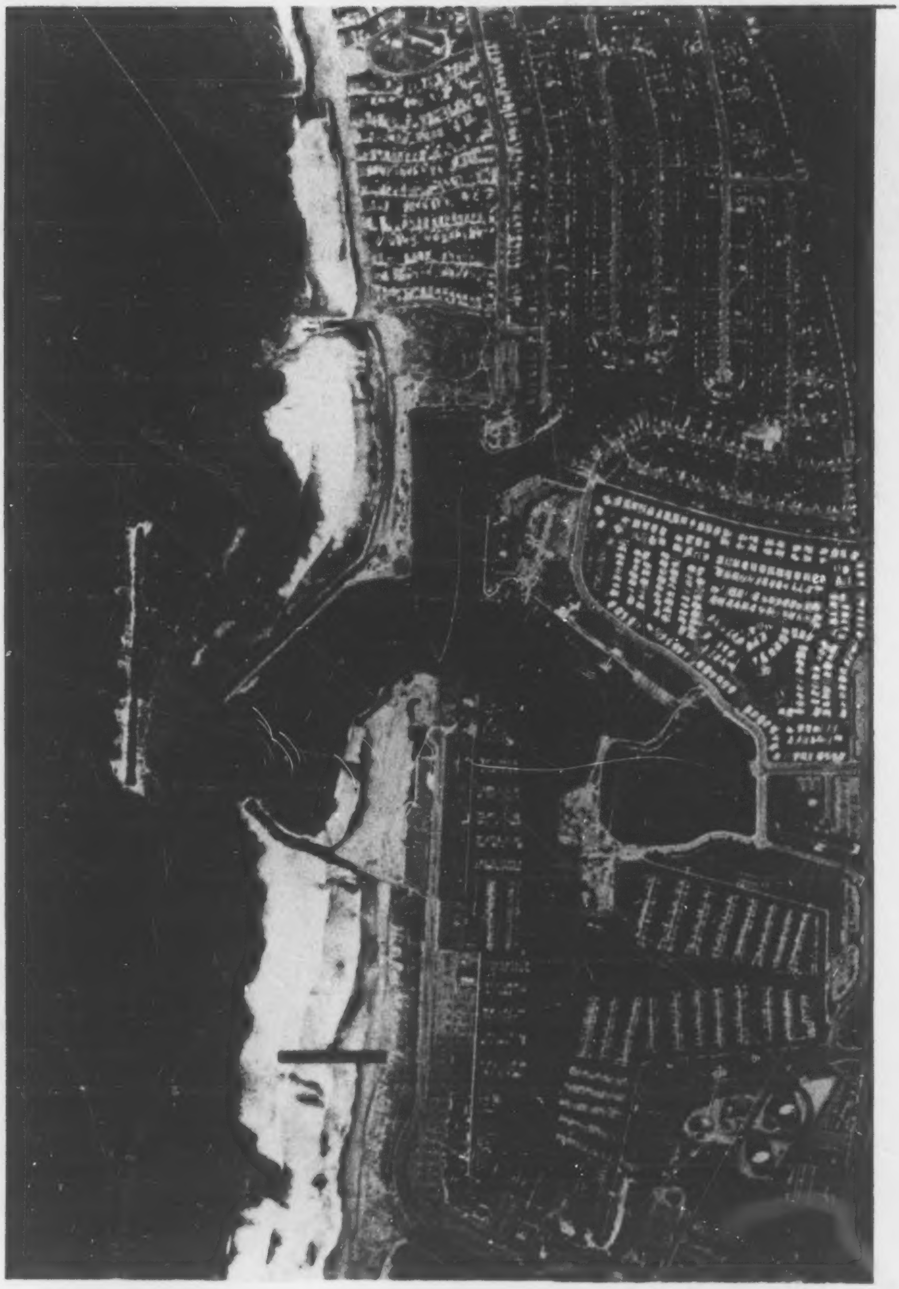
4) a 650 ft. long groin on the South Beach approximately 1000 ft. downcoast from the south jetty to provide a mechanism for trapping drift material from the south.

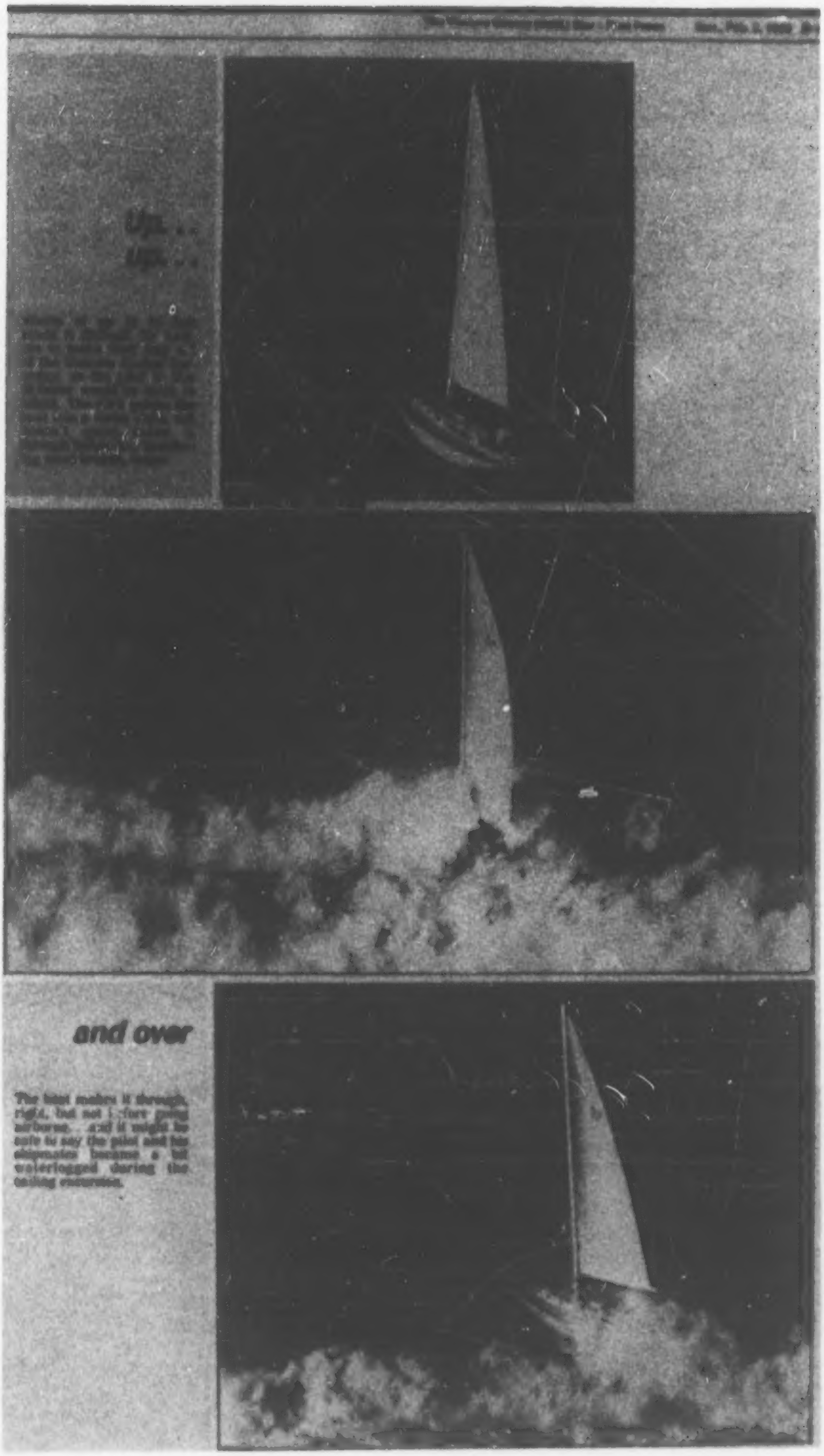
The construction of the above features will also place the maintenance dredging of the entrance channel and sand trap areas on a biennial cycle rather than the present annual cycle. The fact that this results in a $433,000 reduction in average annual maintenance costs, becomes a key component in the 1.8:1 benefit/cost ratio justifying the $6.5 million project. The Port District, as the local sponsor, is committed to funding 20% of this project cost. Average annual costs for this project are estimated at $615,000. Average annual benefits, primarily savings in maintenance costs and commercial fishing losses, are estimated at $1,170,000.

Conclusion

The improvement plan recommended by the Corps of Engineers is vital to the future viability of Ventura Harbor. I appreciate that this Subcommittee's usual practice is only to include projects in its authorization bills that have received a favorable report from the Chief of Engineers. I am confident, however, that such a report will be released in June of this year. Thus, I believe that the plan of improvement for Ventura Harbor will conform to the Subcommittee's requirements prior to the finalization of the Water Resources Development Act of 1990. Your support of this project will be appreciated.

Mr. Chairman, that concludes my testimony. Mr. Parsons and I will be happy to answer any questions that you have.





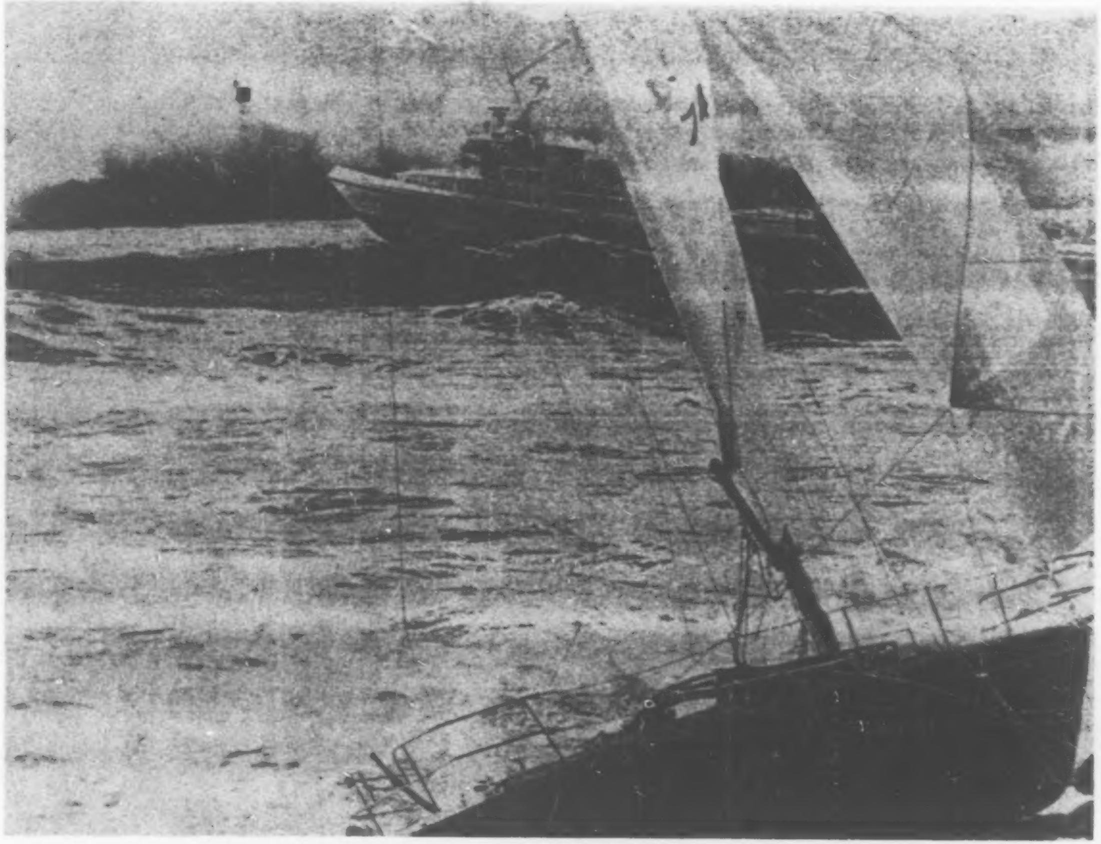
[illegible]

Up . . .
up . . .

[illegible]

and over

The boat makes it through, right, but not before going airborne . . . and it might be safe to say the pilot and his shipmates became a bit waterlogged during the sailing excursion.



An oil supply vessel navigates hazardous harbor entrance conditions while a sailboat lies stranded on the rocks of the South Jetty. (Courtesy of Bob "Flash" Wheeler Photography, Ventura, February 1983)

HARBOR PROTEST A small, but determined group of frustrated boaters enters the water to display their unhappiness over the sand-clogged Ventura Harbor entrance Saturday afternoon by wading almost all the way across the harbor entrance, inset. Dredging isn't expected to start until March. (Courtesy of Ventura Co. Star-Free Press, 12/21/80)

PHOTO 1: Commercial fishing boat attempts to leave harbor 9 March 1984

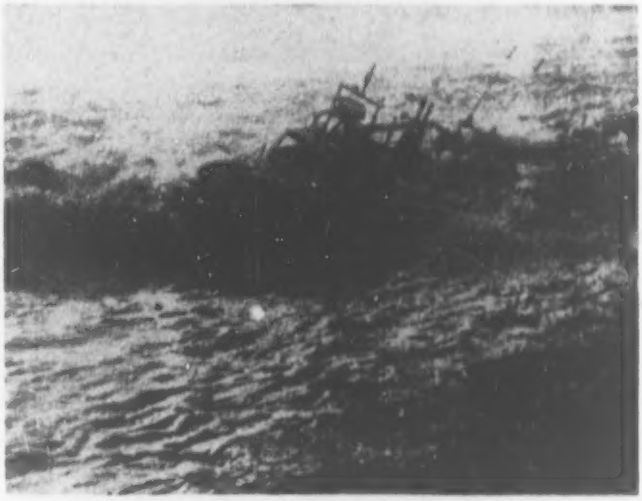


PHOTO 2: Boat becomes disoriented and begins to drift dangerously close to south jetty.

PHOTO 3: As boat begins to swamp, crew works frantically to save vessel.

Mr. NOWAK. Our last witness this morning will be Charles Maynard from the Arkansas Basin Association whom Mr. Hammerschmidt has informed us would like to make a statement and because of an airplane situation we'll take him at this time and then we'll resume at approximately 2:00 p.m. with Congressman Greg Laughlin's testimony and the witnesses he has invited to be with him at the table at that time.

Mr. STANGELAND. Mr. Hammerschmidt regrets that he can't be here to personally introduce Mr. Maynard but with his stature on the committee, we'll accept his previously written introduction and allow you to proceed, Mr. Maynard.

ARKANSAS PROJECTS

TESTIMONY OF CHARLES MAYNARD, ARKANSAS RIVER BASIN COALITION

Mr. MAYNARD. Thank you very much, sir.

Mr. Chairman, members of the committee, I appear here today on behalf of group of organizations: The Arkansas Basin Association, the so-called Montgomery Point Lock and Dam Coalition, and the Arkansas Waterways Commission.

The problem I wish to discuss today lies in the lower section of the McClellan-Kerr Arkansas River Navigation System. The entry into that system is the lower 10 miles of the White River.

Mr. Chairman, I have a complete statement. If I could give just the highlight of it, I would appreciate it.

Mr. NOWAK. We will accept of course your statement, incorporate it totally into the record, and then you may give us any summary that you'd like at this time.

Mr. MAYNARD. Yes, sir, if I may.

In 1946 when the Arkansas River Navigation Project was authorized, there was included at the mile point one half in the White River a structure and also two additional lock and dams, one in Arkansas and one in Oklahoma. Based upon the information available at that time, it appeared that navigation would be possible in the lower reaches of the White at any time the river was above 110 feet and so the dam was eliminated.

The estimates were that it would not fall below that. However, because of the efficiency of the work on the Mississippi since the time of the Arkansas River construction, the Mississippi River has carried more water and cut itself a deeper course in the Mississippi because of the shortening of the Mississippi and the bank paving, et cetera, with the result that the elevation at the entry point of the White River into the Arkansas River is not only below 110 but it is continuing to go lower each year.

The result of this is that the lower end of the White River which is the entry point, restricts the traffic and up to 42 days-a-year traffic and the Arkansas River system has been cut back or curtailed. The problem therefore is that this creates what might be considered an unreliable system.

As I stated, initially the lock and dam was considered there at that time because of the studies available based on some 35 years of study indicated that this would not be a problem. However, because of the increased efficiencies, now the river has cut itself a deeper path and navigation becomes an impossibility in the lower end of the White River for considerable periods of time.

The Little Rock district has undertaken a study as a result of Mr. Hammerschmidt's bill, looking at the navigation in the Arkansas River and has come up with a feasible project at this location. That report is due out of the Little Rock district in March and should be in Washington in June. They propose a lock and dam at this location which would contain a weir that would rise up when the water is low in the Mississippi and since the height of the Mississippi determines the height of the water in the White, when the Mississippi is low, the dam would come up and navigation would go through a lock to be constructed at that point.

When the Mississippi is high, the weir structure would be down and the traffic would flow as it does right now, sir. The corps assures us until their official release that this will be a feasible structure. It should have a benefit-cost ratio of from 1.1 to 1.2 to 1. I was the district engineer at the time the initial construction was carried on back in 1962 to 1965. The Arkansas River Project at that time had a benefit-cost ratio at that time of 1.05 to 1.

The environmental aspects of this structure will be very minimal and for the most part will be beneficial. The White River will be totally contained within its present bounds. It would eliminate the dredging that has had necessary in the past few years since 1980. Last year it cost $5 million. The cost in savings for dredging would be approximately one-half of the cost of the project over the life of the project.

There would be no dredging and this would have the beneficial aspect of not having to utilize wetlands in the future for the dredging that would be required.

There seems to be some question from the corps as to proceeding on this. They have some $864,000 in their budget for continued design studies this year. We think that this problem could be laid to rest. The construction general project for the Arkansas River is still open and work continues on the project.

It's my sincere belief that it is the will of the Congress that the Arkansas River project be completed and operated as it was originally intended. It will take approximately four and a half to five years to build this lock and dam. Each year that is not done, industry fails to look at the Arkansas River where private investment has put $2 billion in to match the $1.3 billion that the Federal Government has placed there. Some 55,000 jobs have already come into being.

Until the system operates properly, those jobs and further investment is in jeopardy. The Coalition and the groups I represent ask that this committee put the authorization issue to rest by informing the corps that you feel the Arkansas River project should be finished and because of the urgency of construction, you would like the Little Rock district to purchase the land for this project in this calendar year.

If you have any questions, sir, I'd be happy to answer them. At the back of my testimony is a highlighted discussions stating the problem, the solution and details of the lock and dam and its impact on the Arkansas River Navigation System, sir.

Mr. **Nowak**. Is it true the information we looked at, the Mississippi, will continue to decline—I guess stabilizing at 95 feet and that was like 15 feet below the original design?

Mr. **Maynard**. That's right, sir. Those are results of recent studies of the Waterways Experimental Station. They've been running a series of tests down there for the last two years, sir.

Mr. **Nowak**. All right. Let me turn to Arlan Stangeland.

Mr. **Stangeland**. Well, I think your statement, Mr. Maynard, is very inclusive and of course, we'll go over your written testimony very carefully.

I know that Congressman Hammerschmidt has a very real interest in this. I think we're going to have a lot of requests for a lot of projects in our Water Resources Bill and we have a responsibility to try and prioritize those and we will certainly take this into consideration when we look at the project and the overall projects that we're going to be authorizing in this year's bill.

I have no specific questions at this time. It may well be that we want to submit some questions in writing at a later time for you. Thanks for being here.

Mr. **Maynard**. I thank you, sir.

Each day the river is shut down, it costs approximately $250,000 in lost business. It averages about 42 days a year it has been shut down. Approximately $1.4 billion worth of product moves each year. I think the main feature is that the Federal Government has spent $1.3 billion on this project. Industry has put in some $2 to $3 billion plus, and without this, the system becomes unreliable and we in a sense are pouring water down a rathole if we don't fix it, sir.

Thank you.

Mr. **Nowak**. Thank you very much for your appearance.

[Mr. Maynard's prepared statement follows:]

Statement of
Charles D. Maynard, Col., USA Ret'd
on behalf of
The Arkansas River Basin Coalition
for
The Montgomery Point Lock and Dam
to
The Water Resources Sub Committee
House Public Works & Energy Committee
U. S. House of Representatives

My name is Charles Maynard, one of seven board members of the Arkansas Waterways Commission. The basic purpose of the Commission is to develop commercial navigation on our five navigable rivers, the Arkansas, Mississippi, Ouachita, Red and White. The one that needs the help and right now is the McClellan-Kerr Arkansas River Navigation System. I appear here today on behalf of that Commission and for the Arkansas River Basin Coalition for Montgomery Point Lock and Dam, which represents a group of many organizations in Arkansas and Oklahoma.

The System consists of the White-Arkansas-Verdigris Rivers, the problem is in its first ten miles of the White River.

In that stretch the elevation of the water is determined by the level of the Mississippi as this reach of the System is the backwater of the Mississippi. The success of the U. S. Army Corps of Engineers in controlling the flooding on the Mississippi River is responsible for the problem on the lower part of the McClellan-Kerr System.

The Arkansas River and Tributaries, Arkansas and Oklahoma was authorized by Congress in 1946 (House Report 79-758) and at that time the Corps plans included a lock and dam essentially at the site (mile .5 right descending bank) where one has been needed since 1980. This dam, along with two others, one in western Arkansas and one in eastern Oklahoma were deleted from the project as at the time it was believed by the Corps that there was no need. The Corps was right about the upstream two dams but mother nature is going to have her way about the one we now call Montgomery Point Lock and Dam.

For more than 35 years the Corps had monitored the elevation of the water at mile 599 on the Mississippi River, the entry point of the System into the Mississippi. In 1962, studies established that the top of the water at this river mile would not go below 110' and the quantity of water carried by the Mississippi at this location was documented at 100,000 cfs. BUT in the 1930's there were cutoffs made on the Mississippi below Vicksburg and Greenville. Bank paving, the needed training works for flood control were just getting underway. Today, almost 90% of the Mississippi River flood control portion of the project is complete and the water level has dropped below 110' at mile 599.

The Corps has done a superb job on its flood control of the Mississippi. It is now carrying a greater quantity of water at a lower elevation and this has been and is good for the Mississippi River Valley. However, it has adversely impacted the Arkansas River nagivation system.

Today at mile 599 for water to be at 110', it requires 175,000 cfs of (Mississippi River) water moving by this location. Further, almost each year during the 1980's the elevation has dropped below 110'. In 1989 it went below 105'. Please remember that the Mississippi River determines the amount of water in the first ten (10) miles of the system.

The McClellan-Kerr Navigation System got off to a roaring start in 1970. The 445 mile system with 17 locks and dams allows navigation to move from the Mississippi River entrance channel to Tulsa, OK. Tonnages moved from zero (0) to the 8-10 million tons annually in the first 6-7 years but then the low water problem occurred. So we have a $1.3 billion project that has a national reputation of being unreliable.

This is because low water on the average will restrict use 42 days a year. I believe you know what uncertainty does for business and I believe you can appreciate the seriousness of the problem if, as a businessman, you were told you couldn't get anything into or out of your place of business for more than 10% of the time. In development terms, it means industry will not settle in the Basin and use the System which was created to provide the water users this mode of travel, which excluding pipelines, is the least expensive mode of transportation.

The potential annual tonnages that could move on the system are in the range of 35-45 million tons. Yet, we continued to be in the 8-10 million range. Montgomery Point Lock and Dam should allow this movement.

The lock and dam we now need was in the original project. The Construction General Account used by the Little Rock District Engineer to build the System is still active. The Corps placed $840,000 for detailed design studies in the President's 1991 budget. The Corps will tell you privately that the project is required. The system isn't working as the Corps said it would, yet questions are raised as to the Corps authority to construct the project.

The Little Rock District is now completing the navigation aspects of the Arkansas River Basis Comprehension Study, and will forward its report the end of March. Every indication is that the Montgomery Point Lock and Dam is needed, has a favorable benefit cost ratio and has minimal environmental aspects, most of which are favorable and one half the cost of the structure will be recovered over the life of the project by the elimination of dredging presently required.

Perhaps the Coalition or the Arkansas Basin Association or the Arkansas Waterways Commission or Arkansas Basin Development are too close to the issue but as an engineer if I let a contract (authorize) a company to build a house for me, that company is authorized or under contract to build that house until it is accepted by me or the contractor is told to stop the construction of the house.

In this case, Congress has not told the Corps to stop construction. On the contrary, the LRDE's Construction General Account has been left open. The Corps has asked for more money to continue the work but most importantly the project is not working like Congress told the Corps it wanted the System to work.

It is my honest sincere belief that it is the will of Congress for the Corps to get on with the job. We know that it will take 4-5 years to build this lock and dam. This means that both the public ($1.3 billion) and private investment ($2 billion) and some 55,000 jobs will be at risk until the System operates dependably. Further, we both know added investment will lag until the whole project is dependable and maximized.

The Coalition requests that the Committee put the authorization issue to rest by informing the Corps that you want the project finished and further because of the urgency of construction you want the LRDE to purchase the land for the project in this calendar year.

If you have questions, I will be glad to answer them. I do thank you for allowing me the opportunity to come before you and discuss this crucial infrastructure issue with you. I will be happy to furnish any additional information you desire.

/epm

Montgomery Point Lock and Dam

The on-going integrity and future use of the McClellan-Kerr Arkansas River Navigation System are in peril.

The McClellan-Kerr Arkansas River Navigation System was authorized by Congress in 1946 for navigation, flood control, hydro-electric power generation, and recreational purposes. Strategically located within the central United States, the system begins at the Port of Catoosa, near Tulsa, Oklahoma, and stretches 445 miles through a series of locks, dams and channels until it joins the Mississippi River.

Plans for an additional lock and low water dam at Montgomery Point are scheduled for review in 1990.

The Problem:

The future of the McClellan-Kerr Arkansas River Navigation System is threatened! The Mississippi River elevation at the confluence of the Navigation System has been dipping lower than thought possible by the waterway designers, which not only threatens navigation related commerce, but could indirectly effect the other uses of the multi-purpose waterway as well.

As originally designed, the system was to operate at 110 feet above sea level, the lowest predicted level at the confluence. However, the forces of nature combined with the impact of bank stabilization and other man-made alterations along the Mississippi over the years have caused the surface level of the water to drop at the entrance to the System. Predictions state that the Mississippi will continue to decline before stabilizing at approximately 95 feet above sea level, which is 15 feet lower than the designed confluence elevation.

The resulting low water level of the Mississippi and increased sediment buildup at the confluence have required frequent dredging operations since 1980 just to keep this 10-mile section of the channel open for barge traffic. Eventually shippers will lose faith in the reliability of the system and, therefore, turn to other modes of transportation resulting in both higher shipping costs and increased prices of related finished goods. Past experience indicates that even after the problem is corrected, it could take five to seven more years to regain the lost confidence of shippers. In addition, the billions of dollars already invested by the Federal Government and private sectors to develop the navigation system will be in jeopardy.

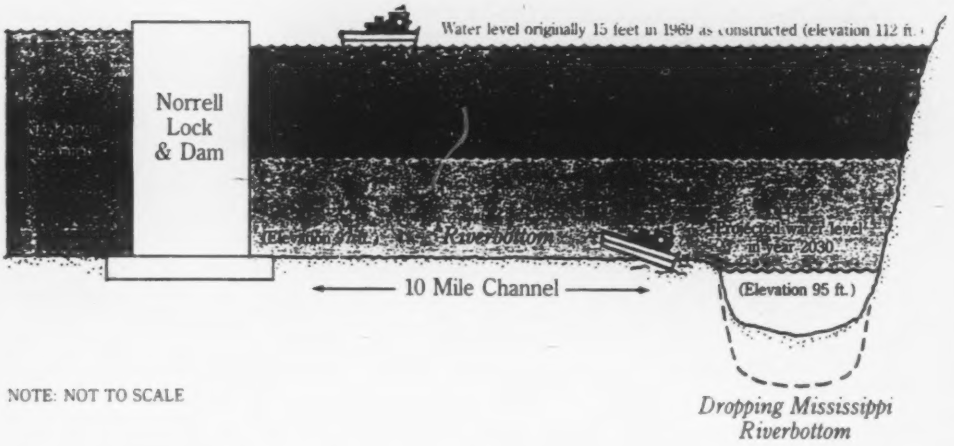
The Solution:

Intensive scale-model tests were conducted to experiment with various options that would hopefully correct this dilemma. Results from that study indicated that an additional lock and dam in close proximity to the confluence would provide the solution. Three different designs are currently being examined.

Concern for the river and wetlands adjacent to the proposed dam site prompted a careful environmental study. The construction of a low water dam would neither hold water above the existing river banks, create any lakes, nor flood surrounding natural habitat. In fact, a dam will not only reestablish the historical water elevation documented over the past 100 years but also dramatically reduce the need for future dredging operations along the shipping lane.

The Montgomery Point lock and low water dam designs are scheduled for final review in July, 1990, with results to be incorporated into a report and environmental impact statement by September of that year.

Arkansas River Navigation System
Entrance Channel PROFILE


Water level originally 15 feet in 1969 as constructed (elevation 112 ft.)
Norrell
Lock
& Dam
Riverbottom
Projected water level
in year 2030
10 Mile Channel
(Elevation 95 ft.)
Dropping Mississippi
Riverbottom

NOTE: NOT TO SCALE

The Future of the McClellan-Kerr Arkansas River Navigation System is Threatened!

- The Mississippi will continue to decline before stabilizing at 95 feet, 15 feet lower than the original design confluence elevation.
- Low river stages of the Mississippi and sediment accumulation at the confluence will restrict use of the system and have a negative impact on shipping capabilities.
- The Montgomery Point Lock and Dam would be constructed in close proximity to the confluence of the two rivers to provide the much needed solution.

White River Valley Commission
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Testimony
of
Mayor Wayne Beard, Chairman
White River Valley Commission
Before
The
House Committee
Public Works
Congress of the United States
Regarding
Water Resource Development
Authority Hearings
March 7, 1990

My name is Wayne Beard. I am the elected Mayor of Newport, Arkansas. Three years ago, the Arkansas General Assembly passed legislation to establish the White River Valley Commission. Governor Bill Clinton asked me to serve as one of the members of the Commission. The Commission thereafter named me to serve as it's Chairman.

The 99th Congress in 1986, authorized the White River navigation project entitled, "The Water Resources Development Act of 1986."

The individual cities, towns and counties in the White River Valley worked for several years to secure this project. The White River Valley Commission was established as a direct result of this work to secure this project. We who live and work in the White River Valley realized that it was important that a single official body be established to represent this section of Arkansas.

The Corps of Engineers, Memphis District, did a great deal of work and presented their findings to this Committee. The navigation history of the White River Valley goes back to before the Civil War. During the war both the union and confederate forces utilized the White River more than any river in Arkansas.
The federal government recognized the importance of the White River in the early 1880's when the first dredging work was done.

The Corps of Engineers, memphis District, recommended the 1986 navigation and this Committee and the Congress authorized the project and gave the people of Arkansas five years to work out the funding with the Federal Government.

In 1988, the Congress de-authorized this project. It was represented to this Committee and the Congress that there was no interest in the project. There were no public hearings no where in any of the cities, towns or county goevernments that were asked if this statement was correct. The White River Valley Commission was not requested to comment on the de-authorization and we learned of this Congressional action after the fact and the project was de-authorized.

I am here today to assure this Committee that there was a break down somewhere in communications. This navigation project is needed in our Delta section of Arkansas. I know of no city, town or county government on the White River that does not support this project.
We are requesting that the Congress renew it's authorization of the 1986 White River Navigation project and give us our five years to give us time to serve our part of this project.

It seems to us that since we did all the work, organized the people, held the public hearings and worked with the Corps, that it is only fair that we have the entire five years to serve our funding. We understand how mistakes are made. We also understand how, when a mistake is made it can be corrected. We are asking you to correct the mistake of 1988 and put us back in the same position you found us. What we are asking is for a re-authorization of the 1986 White River Navigation project.

The Arkansas Delta is the most depressed economic section of Arkansas. Last year the Congress authorized a two million dollar study to determine how the Mississippi Delta, of which we are a part, could be helped. I submitted a statement to the Federal Delta Commission setting out the facts of this navigation project and how we needed it in order to help ourselves. I would make this statement a part of my prepared remarks.

STATEMENT
OF
MAYOR WAYNE BEARD
NEWPORT, ARKANSAS
TO
ARKANSAS LOWER MISSISSIPPI DELTA DEVELOPMENT ADVISORY COMMISSION

My name is Wayne Beard and I have served as Mayor of the city of Newport for fourteen years. I am presently Chairman of the White River Valley Commission, which was established three years ago by Arkansas General Assembly. The main purpose of the organization was to bring the 13 counties of the White River Valley together to discuss the problems facing the people of our region and suggest possible solutions. Representatives from each county were appointed be Governor Bill Clinton.

The White River valley is located on the western edge of the Mississippi Delta in north and central Arkansas. For many years farming was the basis of our economy, but that has changed in recent years. Because of changes in agriculture and lower prices in the crop market, many of our residents have been forced to choose between living in poverty or leaving their homes and moving to more prosperous areas.

The White River is a great natural resource. In just nine of our counties alone almost 50,000 people can be fed for one year from just one acre of rice and wheat production. White River valley farmers lose .10 -.15 cents per bushel on their grain production because of higher transportation costs than farmers closer to the Mississippi River. This .10 - .15 cent per bushel loss totals millions of dollars each year that is badly needed by our people.

The citizens of Newport are aware of the importance of the river to the community, that is why they are working to make a good river great. We are presently working toward the construction of a one million dollar port to help local industries like Razorback Steel. According to Razorback management, regular and dependable river transportation is a necessity when trying to sell goods in todays competitive markets. Some 25 new jobs can be created at this plant alone if navigation on the White River can be improved.

It is our hope that the federal government will approve the 30 million dollar expenditure to improve the rivers navigation. The Corps of Engineers has ruled that the project is justified. It is our hope that you the members of the Arkansas Lower Mississippi Delta Development Advisory Commission will join with us in requesting the much needed funding for this program.

The following position paper on the White River can best explain the project along with the needs.

POSITION PAPER - WHITE RIVER

The White River project which would provide for a 9' channel from the mouth of the river to Newport is in the words of Governor Clinton "a bargain." It is a relatively inexpensive project that can and will make a significant economic impact in a basin that has suffered all sorts of financial woes. The advantages of the project are not lessened by adverse environmental impacts and to all Arkansans this is an extremely important facet of the project.

The project would result in significant transportation savings, increases in the regional and national resource base, and other socio-economic benefits. Recreation opportunities would be enhanced by construction of proposed recreation features. Project-related wildlife losses would be mitigated. Elevated disposal areas once revegetated will serve a beneficial purpose in low lying, frequently flooded areas, by providing havens of safety from floodwaters for wildlife. The proposed project would have no impact on flood elevations or frequency and no induced clearing is anticipated. No known historical or cultural resource would be affected.

Representatives from the Corps of Engineers have stated that this 244 mile project costing $28.8 million federal dollars is probably the least expensive project in the annals of Corps history. It is certainly their best bargain in our time.

This commission is often asked about the value or the need for the White River Project. We can and do give the benefit cost ratio (2.1 to 1) but you then have to explain the ratio and it is often misunderstood. Perhaps a better tactic would be to compare it with a young, but in place State water project e.g. McClellan-Kerr Arkansas River Navigation System.

The easy part of the comparison is the listing of the physical characteristics of the projects and they follow:

	Length (miles)	Locks,dams	Depth	Width(min)	Tow size
Arkansas	445	17	9'	250'	8
White	254	0	9'*	200'	2

You cannot compare these projects without discussing total costs and they are:

Arkansas	$ 1.2 Billion
White	$29.4 Million (October 1986 prices)

On a per mile basis the river cost are:**

Arkansas	$ 3 Million
White	$ 115,700

* - 95% of time (Clarendon gage reading of 10.5')

** - The reader may find the costs for the Tennessee Tombigbee of interest. The locks are designed for an eight (8) barge tow.

TOTAL (Oct. 1986) Distance Cost Per Mile

$1.78 Billion 234 Miles $7.6 Million

Each project will provide a water highway in its respective basin and in turn, a means of transporting the goods, materials, and farm products indigenous to the area. The similar farm and other products include: soybeans, grain fertilizer, petroleum, sand and gravel.
What has or will these expenditures do for the region of the State in which the project is located? First, let's identify the number of jobs that have been created in the Arkansas Basin (53,000) (15 counties) since 1970, the project completion date. The 1985 average unemployment rate in the Arkansas Basin is solely because of the navigation system, but Professor Ford, an economist at the University of Arkansas at Little Rock, says it is a major consideration.

The White River project will have no locks and dams, nor will there be any cutoffs on the river. There will be bend widenings and dredging that will take place along 56 miles of the 244 miles of waterway between mile 10 and Newport. There will be no straightening of the river. The water levels will not be significantly affected. The channel cross section will be increased by an average of 2% within the 56 miles where dredging will occur. Project channel dimensions would consist of a 200' bottom and a 9' depth 95% of the time.

Major aquatic impacts are expected to be localized in the vicinity of dredging and disposal operations and temporary in nature. Sedimentation in the refuge is not expected to increase as a result of increased dredging activity. Slight decreases in air and water quality would occur during construction. Noise levels would increase and some adverse impacts to the esthetic quality are anticipated during construction and maintenance activities.

Impacts to wildlife habitat would be fully mitigated with about 1,865 acres of bottomland hardwoods purchased and placed into public ownership for future generations. Fishery improvements would likely be made, probably in the White River National Wildlife Refuge.

Exhaustive hydraulic studies have shown that the dredging would have no measurable effect on water surface elevations in the river. However, to constrict the river and further help the navigation channel and lower the maintenance costs, some dike works would be constructed at various river miles.

The alignment, bank and channel conditions are good and this probably accounts for the continuous shipping on the river since the early eighteen hundreds.

Slightly more than 650,000 tons were shipped on the White in 1982 and according to the Corps, this figure would be around 980,000 tons in 1996 if nothing was done to the river. If the project were undertaken in 1990 and functioning by 1994, according to the Corps, the 2000 figure then would be on the order of 2.5 million tons.

History has shown us on the Arkansas River that the Corps' estimates of tonnages are low, e.g. 1965 projection for 1980 was 2.5 million versus 10 million actual. The Commission believes this will be the case for the White (White River tonnages are too low) since the Corps' projections only took into account existing White River Basin company expansions.

Cost-sharing for the inland navigation would make construction and maintenance of the navigation improvements for this project essentially a 100% federal responsibility, 100% federally financed. Presently one-half of the cost could be paid out of the general fund of the U.S. Treasury and one-half from the inland Waterway Trust Fund. The inland Waterway Trust Fund is financed from fuel taxes paid by waterway operators.

Non-Federal costs could be limited to the costs of optional recreation features, including a scenic overlook. Hopefully the White River Project will be recommended for authorization and funding by the Lower Mississippi Delta Commission.

White River Navigation Facts

1. Physical Aspects of Project -
    - -- 200' bottom width, 9' deep, navigable 95% of year.
    - -- 9' depth of project with a 10.5' reading at Clarendon gauge.
    - -- 36 stone dikes at 9 locations on 244 miles of river.
    - -- 154 disposal sites over 993 acres that hold dredge material.
    - -- The total amount of material dredged annually on the White River is approximately 1.5 to 2.5 million cu. yards. The annual cost is approximately $1.5 million.
    - -- There will be locks or dams spanning river. It will continue to be a free flowing river.
    - -- Both the dikes and revetments will improve the stability of the navigation channel in areas with a history or high likelihood of future meandering. The dikes will confine the flow of the river during low stages to a more narrow section than presently exists and thus decrease the need for maintenance dredging in the reach. The over-all in bank carrying capacity of the river will be increased by less than one-half of 1% mainly as the result of dredging, but this increase will not result in any measurable change in flow rates and will not result in emptying the river faster or in increased flood stages. There will be some localized increase in turbidity during construction, but no significant long term impacts as a result of the training works.
    - -- The existing project has dimensions as follows:

From Mile	To Mile	Channel Size
0.0	9.8 (Ar. Post Canal)	300' x 9'
9.8	198.0 (Augusta)	125' x 5' minimum
198.0	254.0 (Newport)	100' x 4.5' minimum

A 9' depth exists 76% of the time.

- -- A contract to perform the dredging is awarded in May or June each year. The snagging portion is accomplished with Corps of Engineers personnel. The total amount of material dredged annually is approximately 1.5 to 2.5 million cu. yards. The annual cost is approximately $1.5 million.
- -- The project authorizes pier protection for the bridges spanning the river.

2. Economic Aspects of Project -

-- 1970/1975 631,000 (average) tons moved annually, should increase to 988,000 annually by 1996 and reach 1,498,300 by 2030.
-- (July 1977 prices) annual transportation savings $3,114,000 as a result of reliable channels and widths.
-- Cost per mile (-244 miles; $32,000,000) - $131,147
-- Compare $131,147 to $2,471,910 per mile cost on Arkansas (1.2 billion divided by 445 miles) or $2 - $2.5 million per mile for a four-lane highway.
-- Commodities for which navigation benefits would be realized include the following: Soybeans, Wheat, Bagged and bulk rice, Fertilizer, Fuel Oil, Gasoline, Crushed Stone and Sand & Gravel.

3. Environmental Aspects of Project -
-- 1.8 million acres of bottomland hardwood in 1940 but 800,000 acres in 1970. 288,000 acres of these are under Federal or State ownership and 50 years hence only lands in the hands of the public will not have been cleared.
-- Disposal areas will be refuge for game in time of flooding.
-- Disposal area will be revegatated.
-- Reduction of land loss to erosion by 235 acres over life of project.
-- No alteration of flood hazard on river.
-- After 3-5 years, maintenance of dredge sites is a non-federal responsibility.
-- Only portions of 56 miles of the 244 miles of river channel will be dredged. The cross sectional area of that part of the 56 miles dredged will increase less than 2%. This means the dredging will impact the flows of the river by less than one-half to 1%. Stated another way there will be no water elevation changes as a result of dredging.
-- The Secretary of the Army is authorized to include weirs in tributary areas which are necessary and appropriate to benefit aquatic habitat. The project is not expected to have a measurable impact on flow rates and stages; thus, no impact to bottomland hardwoods is anticipated. Aquatic habitat at the dike locations will be permanently converted to terrestial habitat by the deposition of sand over time in the dike fields. No problems are anticipated with the construction of the channel revetment.

4. Mitigation Aspects of Project -
-- 1865 acres for mitigation of the loss of 680 acres of bottomland hardwood (216 acres of wetlands) and 313 acres of cleared lands for placement of excavated materials.
-- 585 of the 1865 acres of mitigation located adjacent to the White River National Wildlife Refugee and managed by USFWS. Remainder managed by Game & Fish Commission.
-- PL 99-662 "Water Resources Development Act of 1986" authorizes the Secretary of the Army to mitigate for fish and wildlife losses of up to $7,500,000 or 10% of the cost of the project, whichever is greater.

In closing, we ask that you consider the work being done by residents of many cities and towns along the banks of the White River to improve the present economic conditions. We are dedicated to the White River Navigation project, but we need your help. We are asking that you support the $30 million dollar Whtie River Navigation Project. We also ask that you go on record as supporting our efforts to establish ports at Newport, DeValls Bluff and other cities along the White River.

Thank you for the opportunity to bring this important project before your commission.

Wayne Beard

Wayne Beard, Chairman

Conclusion

We appreciate the opportunity to be heard by your Congressional Committee. We need your help in order to help ourselves. We just simply say to you: Please restore our 1986 White River Navigation Project and give us our original five years to work out the details of how we can fund it.

This is a most important project to us. We thank you for considering our request.

Wayne Beard, Chairman

Mr. **Nowak**. The subcommittee will stand adjourned until 2:00 p.m.

[Whereupon, at 12:55 p.m., the subcommittee recessed, to reconvene the same day at 2:00 p.m.]

AFTERNOON SESSION

Mr. **Nowak**. The subcommittee will come to order.

We will have our colleague and a member of this subcommittee, I recognize Mr. Greg Laughlin who is from Texas and has, I think, a brief statement and introduction to make.

Congressman Laughlin.

GULF INTRACOASTAL WATERWAY, TX

Mr. **Laughlin**. Thank you, Mr. Chairman.

I'm pleased to introduce our next witness, Mr. Berdon Lawrence, president of Hollywood Marine. Berdon's been a long-time friend and supporter. He's the largest tank barge operator in the Gulf of Mexico and he'll be testifying before our subcommittee today on the Sargent Beach problem which the chairman may recall last week I spent some time with Secretary Page addressing the concern we had about the priority—the effort to preserve that stretch of the intercoastal canal.

I don't know of anyone who could be a better authority on the utility and the value of the Gulf Intracoastal Waterway and this section than Mr. Lawrence who does a great deal of business and it's indeed a pleasure to welcome him before our committee.

Thank you, Mr. Chairman.

Mr. **Nowak**. Thank you, Mr. Lawrence.

TESTIMONY OF BERDON LAWRENCE, PRESIDENT OF HOLLYWOOD MARINE, INC., HOUSTON, TX

Mr. **Lawrence**. Thank you, Mr. Laughlin, Mr. Chairman. It's a pleasure to be here today to discuss this problem. As you know, I'm here to discuss the threatened closure of the Gulf Intracoastal Waterway over a 7-mile reach known as the Sargent Beach area. I will keep my remarks to seven or eight minutes and then I'll have a detailed summary that I'm submitting for the record and I'd be happy to go over any questions you may have after I make my remarks.

First, I would like to start with a little background and a general overview. Tank barge companies that are similar to mine and our company operate barges ranging in size from 10,000 to 30,000 barrel barges pushed with 800 to 1,800 horsepower boats along the Gulf Intracoastal. These tows are moving materials up and down the entire Gulf Coast serving all of the different industries on the Gulf Coast but they're also tying into an integral way with the Mississippi River system and the Ohio River system, serving all that system.

Many of the products that we move are brought to terminals in different plants that are shipped in pipelines to the midwest part of the United States and to the east coast and many of the products that we move end up in vessels for export. I might add that the petrochemical business has been one of the businesses that's had a positive balance of payments in the last few years. So my point is that although this problem is in a 7-mile stretch of the Gulf Intracoastal Canal in Texas, it's really a problem that's national in scope and international in scope, in many cases.

In addition to the important commercial interests, there's many benefits also to the recreational users of that stretch of the canal. The Gulf Intracoastal Waterway was originally constructed during the 1930s and it had a two-fold objective of national security and public works. Over the past 50 years, it has developed into a key transportation link providing very cost effective, safe transportation for the Gulf Coast.

The Texas Transportation Institute has estimated that the Texas portion alone of the Gulf Intracoastal Waterway contributes $3 billion per year in direct revenues and expenses to the Texas economy. The volumes that are transported on the canal are such that there's no practical alternative should the canal be closed.

One of our normal tows that traverses this stretch of the canal is about 50,000 barrels and a 50,000-barrel tow would be the equivalent of 75 rail cars and 300 trucks and there's virtually hundreds of these tows operating each day. The Corps of Engineers estimates that there's 75 million tons a year going through this stretch of the canal. So to try to go with alternate routes of trucking and rail just would create total gridlock. There's no way that there would be enough roads or railroads to be able to handle that.

The second part of my remarks is when I'd like to comment on a few of the specifics of the threatened closure. Shoreline erosion is an urgent concern all along the Texas Gulf Coast and the entire Gulf Coast for that matter. Of the Texas 400 miles of shoreline, 60 percent is eroding at an alarming rate. This natural phenomenon has been going on over the last 100 years and one of the worst erosion areas is the Sargent Beach area, which I spoke of for approximately seven miles but I want to add a key point here. It's only the Sargent Beach area of the thousand miles of Gulf Intracoastal Canal from Florida to Brownsville that's really threatened. When they built the canal back in the 1930s, the canal was originally six feet deep and when they connected the Cedar Lakes to the Matagorda Bay, they chose to go very close to the Gulf.

For this reason, this erosion has created a threat to the canal but I want to make it clear that this is the only area—this seven miles is the only area. That problem is not existing in other areas of the canal.

The Corps of Engineers and their data shows that the rate ranges from 25 feet to 56 feet per year. There's been an entire subdivision of houses and streets that have gone into the Gulf in the last 15 years and now the shoreline of the surf is about 600 feet from the Intracoastal. So I cannot overemphasize the critical nature of this issue from a timing standpoint.

Studies vary right now on the time of when the actual breach is going to occur. Some people feel it's going to occur in the next 5 years. Many feel it will be 10 years. Some think it will be 15 years, some even a little longer, but the truth is, no one knows because it depends a lot on the hurricanes that hit the Gulf Coast. There's a lot of people who feel that if a big hurricane hits, the whole breach could happen in one hurricane. If we have some small hurricanes, it could also happen.

So it's a real indefinite time frame and many people I've talked to admit that it totally depends on how many hurricanes hit the Texas Gulf Coast.

If there is a breach, the Gulf Intracoastal Canal will be closed to standard inland barge traffic. Our barges are all designed to move in sheltered inland waters and we cannot operate in the surf of the Gulf of Mexico. Also, if the surf moves into the canal, it will bring silt and sand and rapidly fill up the canal so there won't be the necessary depth to traverse that part of the canal.

The Colonel of the Corps of Engineers in Galveston, Colonel Brink Miller, has said that if the canal is breached, it will definitely be shut down. If this happened, it would isolate 250 miles of the southern part of the canal south of this area all the way to Brownsville and it would cut off the ports of Bay City, Corpus Christi, Harlingen and Brownsville.

So I'm here today to tell you that prevention of this breach is critical. Corpus Christi is the sixth largest port in the United States and Houston is the third largest port. Texas is the largest maritime State in the Union and one of the major reasons for this is the synergy created by this interconnecting link along the waterway.

Colonel Miller now has placed the Sargent Beach problem as the top priority of the Galveston district. I have reviewed the alternate plans that are being discussed now to try to solve this problem and in my opinion, the reinforcement and protection in the 500-foot, 600-foot area that is still there is the right way to go. By putting protection on that, that would save not only the homes that are still there but we would protect the Intracoastal Canal and we also would protect many environmentally sensitive wetlands behind the Intracoastal.

The other alternative would be to reroute the canal and I feel that that would be terribly expensive and it would go through very sensitive wildlife areas and I don't think that that's an alternative. I think that going through and putting up some type of barrier is what needs to be discussed as the way to go. They're telling us that the price for that is estimated at this point at about $15 million to as much as $40 million depending on the type of protection that is used.

As a representative of the barge and towing industry, I can only echo the sentiments of our industry as to how critical this is and how critical we feel that this needs immediate attention. I appreciate very much you giving me this opportunity and I'll be happy to try and answer any questions that you may have about this problem.

Mr. **Nowak**. When we speak of a wall, have they given you any indication of the type of design that they're looking at?

Mr. **Lawrence**. Yes, sir. They're looking at—one of the types would be a rock revetment type of protection and that's the one that I feel will cost about $15 million.

They're also speaking of possibly a steel sheet piling-type protection and they're also speaking of a concrete sheet pile protection.

So they're looking at about three different ways and their thinking would be to go down somewhere in the middle of that peninsula to protect it for that 7-mile reach.

Mr. **Nowak**. You mentioned that the surf is now 600 to 700 feet away from the canal?

Mr. **Lawrence**. Yes, sir.

Mr. **Nowak**. If that's breached, of course, then you've got all kinds of problems but when you talk in terms of 600 or 700 feet, how long of an area are we talking about that would have to be walled or protected?

Mr. **Lawrence**. It's about seven miles.

Mr. **Nowak**. We had the opportunity to go into that area with Greg and the Corps of Engineers and looking up, as you fly over that, there's a road that runs right along which is almost adjacent to now where the surf is. Some areas looked 25 to 30 feet away from the road and I'm trying to recall, suppose this was done and you protected that six to seven miles of critical area now, do you know what the studies have shown as to the surf reaction to the adjacent areas or does the canal then turn more inland after this six or seven miles? I think that was——

Mr. **Lawrence**. Yes, sir. That's a good question. I have a package I handed out and if you'll notice behind my testimony, it shows where the canal was routed down adjacent to the Gulf for that seven miles. As you can see, as it approaches that area, it goes immediately back further inland.

Mr. **Nowak**. As it moves inland, you look like you're talking 2,000, 3,000 feet inland and then turn; is that correct?

Mr. **Lawrence**. Yes, sir.

Mr. **Nowak**. Let me turn to Congressman——

Mr. **Lawrence**. That's why I was making the point, sir, that although we have erosion all along the coast, this is the only area of the entire thousand miles of Gulf Intracoastal that we have a threat of a breach.

Mr. **Nowak**. This is a critical area?

Mr. **Lawrence**. Yes, sir.

Mr. **Nowak**. Notwithstanding other problems.

Congressman Stangeland?

Mr. **Stangeland**. Thank you, Mr. Chairman.

Thank you, Mr. Lawrence. Your testimony is very extensive and comprehensive and of course, we get advice and counsel from our dear colleague on the committee, Mr. Laughlin, from that area and we will certainly look at it as we move to markup the Water Resources Bill.

Mr. **Lawrence**. Thank you very much.

Mr. **Stangeland**. I have no other questions, Mr. Chairman.

Mr. **Nowak**. Congressman Laughlin.

Mr. **Laughlin**. Thank you, Mr. Chairman.

Mr. Lawrence, in the package you have a photograph that was of interest to me. I fished that area as a youngster with my dad and it's the color photo about a third page in. When I was a teenager about 30 years ago, that very area, there were seven or eight streets of beach houses, weekend homes, and I see only one house left and when I was last down there some six, eight months ago, at times the tide was under that house.

Can you tell us when the last time you were there and whether that one last remaining house is still standing?

Mr. LAWRENCE. I understand that photo was taken in 1988 when we were working on the McCabe's Cut Project and I understand that that house is now gone. There has been several streets of houses that have already gone.

Mr. LAUGHLIN. The last question I have is, you've indicated that if the canal were breached, Colonel Brink Miller of the Galveston Division of the Corps of Engineers indicated the canal would be shut down.

Can you give us any idea of the effect the closing of the Gulf Intracoastal Waterway at the Sargent Beach area would have on the petrochemical plants, the agricultural industry and other industries that are served by the product that's carried through the canal in that area?

Mr. LAWRENCE. It would be a tremendous disruption because there's no way that the railroads or the trucks could handle that volume of traffic and the types of material—a lot of the types of material that are handled would not be suitable to be handled in the size parcels on ships. So you would have—that whole area south of there would be isolated from the rest of the United States and as I mentioned, many of those products are fertilizers and diesel fuels and things that are used all throughout the midwest and the east and that would virtually be cut off from that part of the country.

So it would create a real crisis if that happened.

Mr. LAUGHLIN. Thank you very much.

Mr. Chairman, that's all the questions I have.

Mr. NOWAK. Let us look at the information you provided and I'm sure we'll have other questions. There's no doubt that this area's going to have to be protected or you're going to give up an awful lot of economic activity in this area and I'll be interested in seeing what the corps comes up with, cost benefit ratio for that kind of project.

Other projects where they've tried—even in the Great Lakes—to berm off, if you will, the wave and surf action, they found the cutting of that surf in one area pushes a lot more energy to the sides but I don't know. This is a 7-mile kind of a treatment and I don't know what the energy release would be going to the side. I'm sure there would be some that isn't present now but I think as you rightly point out—I'm trying to remember the configuration of that road and the canal to the road and where it backed up into the land and there is as I remember, part of our hearing at this time was the protection of the wetlands and looking at that impact. You would have an awful lot of salt intrusion; would you not?

Mr. LAWRENCE. Oh, yes, sir.

Mr. NOWAK. You're getting that already; is that true?

Mr. LAWRENCE. Yes, sir. That's correct. The Gulf would actually go into those marshes and then it would start—after reaching the Intracoastal, it would go into those wetlands.

Mr. NOWAK. Isn't there an awful lot of wildlife nesting and so forth that comes down?

Mr. LAWRENCE. Yes, it is.

Mr. **Nowak**. About people moving, you know, getting condominiums in an area to escape the winter but I guess the birds do that, too.

Mr. **Lawrence**. That's a wildlife preserve right adjacent on the north side there.

Mr. **Nowak**. Right. Well, thank you very much for your testimony here and we'll have the opportunity to go through your material in detail. We may be able to sit down with the corps and then we'll get back further to you with any further questions we may have. We certainly were impressed with the considerable documentation that you put together here and seeing firsthand as we did—Mr. Laughlin invited us down for this, makes it a lot more vivid. We will be working with the corps and certainly your organization to further this process along the best we can.

Mr. **Lawrence**. Good. Thank you for giving me this opportunity to discuss this.

Mr. **Nowak**. Thank you very much.

[Mr. Lawrence's prepared statement follows:]

TEXAS SHORELINE EROSION IMPACT ON GULF INTRACOASTAL WATERWAY

BY: Berdon Lawrence
President

HOLLYWOOD MARINE, INC.
P. O. Box 1343
Houston, Texas 77251
713/868-6400
(Fax: 713/868-6422)

My name is Berdon Lawrence and I am President of Hollywood Marine, Inc. which is a Houston, Texas based inland tank barge company. Our customers consist of petroleum refineries and petrochemical manufacturers with locations along the Gulf Coast. The tank barges that our company and other similar barge companies operate on the Gulf Intracoastal Waterway range in size from 10,000 to 30,000 barrels and are pushed with 800 to 1,800 horsepower towboats in tows consisting of two or three barges. The tows move raw materials and finished goods up and down the Gulf Coast as the supply and distribution chain ultimately makes its way to the consumers of the products.

The Gulf Intracoastal Waterway was constructed during the 1930's to accomplish the two-fold objective of a national transportation security measure and a public works project. Over the past fifty years, it has developed into a vital transportation mode for commerce linking key Gulf Coast ports together, with cost effective, safe and efficient transportation of bulk materials. Much of this transportation is provided by barges. The strategic significance of the canal clearly remains a viable National objective. However, the value added benefit of the canal from a commercial standpoint is often overlooked. The Texas Transportation Institute estimates that the Texas portion of the Gulf Intracoastal Waterway, alone, contributes three billion dollars per year in direct revenues and expenses to the economy.

The majority of the entire domestic petroleum and petrochemical refining capacity has been built over the past forty years along the Gulf Intracoastal Waterway and its connecting inland rivers. One of the reasons for this is because tank barging of bulk liquid products is an extremely safe and cost effective transportation alternative relative to rail and truck. To give you a perspective, one tank barge carries as much product as fifteen rail cars and sixty trucks. So, a normal size tow of 50,000 barrels would require 75 rail cars and 300 trucks. A key factor for holding down the cost of all petroleum based products from gasolines to plastics is to maintain the ability to transport these products in bulk between supply and distribution points along the Gulf Intracoastal Waterway.

The Corps. of Engineers estimates that over 75 million tons of cargo will traverse the Texas portion of the Gulf Intracoastal in 1990 with a value in excess of 20 billion dollars. The Texas Transportation Institute estimates in their 1989 report on the Economic Impact of the Gulf Intracoastal Waterway System in Texas that 30% of all tonnage moved through major Texas ports is due to barge shipments.

Shoreline erosion is an urgent concern all along the Gulf Coast. It has been estimated by the U. S. Army Corp. of Engineers that of the 400 miles of Texas shoreline, about sixty percent is eroding.

One of the worst erosion areas in Texas is the Sargent Beach stretch in Matagorda County. Approximately seven miles of this reach of the Gulf Intracoastal Waterway directly parallels the shoreline. Erosion since 1974 has been closely monitored by the Corps. of Engineers and their data shows the rate ranges from 25 to 56 feet per year. This continued erosion has resulted in the loss of the beach and an entire subdivision of private residences. Currently, the shoreline is less than 600 feet from the Gulf Intracoastal Waterway in some areas along the Sargent Beach stretch. I cannot overemphasize the critical nature of this issue from a timing standpoint. Under normal erosion conditions, the narrow barrier will be breached within a few years and is subject to breach in any single major storm event. If the barrier beach is breached, the Gulf Intracoastal will be closed to the standard inland barge traffic. Our vessels are designed to operate in sheltered inland waters and would be unsafe to navigate in what would become the surf of the Gulf of Mexico if the breach occurs. It would be impossible to maintain the dredged depth in the surf zone and the entire stretch would fill in with sand as the beach moved further inland. The commander of the Corps. of Engineers - Galveston District, Col. Brink Miller, has stated that a breach would close the Intracoastal Waterway. This would effectively sever all barge traffic south of the San Bernard River and isolate the lower 250 miles of the Texas coast, including the ports of Bay City, Corpus Christi, Harlingen and Brownsville.

I am here to tell you today that prevention of the breach of the protective barrier beach is critical to continued operation of the Gulf Intracoastal Waterway. The Gulf Intracoastal Waterway provides a vital marine transportation link between Brownsville, Corpus Christi and the Houston/Galveston navigation districts. Corpus Christi is the 6th largest port in the United States, with Houston being the 3rd. Texas is the largest maritime state in the nation. A major reason being the synergy created by the interconnection of the Gulf deep water ports provided by the Gulf Intracoastal Waterway. Col. Miller has placed the Sargent Beach erosion at the highest priority on the Galveston District's agenda. As a representative of the tug and barge industry, I can only echo the sentiment that this is a very serious matter that demands immediate action. I have reviewed the alternative plans the Corps. of Engineers have proposed. In my opinion, the reinforcement of the protective 500 foot area on the seaward side of the canal makes much more sense than attempting to reroute the canal. The barrier beach contains many private residences and provides protection for not only the Gulf Intracoastal Canal, but also for several environmentally sensitive wetlands that would be destroyed by direct wave action.

Thank you very much. I would be happy to answer any questions you may have about the problem.

Beach erosion serious threat to Intracoastal

By John Ira Petty 11/27/88
OF THE HOUSTON POST STAFF

Beach erosion is threatening Texas' vital Intracoastal Waterway. The economic impact of disruption of its traffic would be devastating.

McCabe's Cut between the Intracoastal Waterway and the Gulf of Mexico south of Sargent is a symptom and perhaps harbinger of the problem. It has become a serious hazard to waterway navigation. Work to close the cut is to begin soon.

But closing the cut is a little like putting a Band-Aid on a life-threatening hemorrhage. Beach erosion could wipe out a 6-mile-long section of the waterway.

McCabe's Cut, hazard that it is, does not threaten to close the waterway completely. Beach erosion might. A hurricane could make it happen overnight.

Many businesses have located on the waterway because of inexpensive water transportation. For some of them, there are simply no economically feasible alternatives.

The most vulnerable section of the waterway is between Sargent, southeast of Bay City, and Cedar Lakes, about six miles northeast. That section of the waterway was dredged well inland.

But beach erosion has reduced the width of the land between the waterway and the Gulf to about 600 feet near Cedar Lakes and between about 900 feet and 250 feet at Sargent. And erosion is continuing at 100 feet or more a year.

That is under normal conditions. Hurricane Gilbert, which struck Mexico, brought high tides and heavy surf that reportedly resulted in erosion of 50 feet of beach near Cedar Lakes. If a hurricane were to strike the Sargent area, some or all of that section of the waterway could become part of the Gulf.

Barges can't operate in the open Gulf — they are not designed to do so, and the regulations under which they are built and operate restrict them to relatively protected waters.

The Gulf Intracoastal Waterway runs from Brownsville to St. Mark's, Fla. Minimum width is 125 feet, and minimum depth 12 feet. The Texas part covers 426 miles.

"It is a vital link in the transportation network that moves . . . commodities called for by this nation and foreign markets as well," says a report by the State Department of Highways and Public Transportation.

Frank Brogan, deputy director of engineering services for the Port of Corpus Christi, described the waterway as "a lifeline for many types of industries along the canal." Cropus Christi gets about 800 ships a year — and 4,000 barges.

"The barge traffic is critically dependent on the (waterway) being open," he said. "The consequences of it being shut down and requiring those cargoes to go by ship would be drastic."

Photo by Louis Nataro/Hollywood Marine

Currents flowing through McCabe's Cut, right, can affect tows.

It is an important artery for many Houston-area industries.

"Last year 110 million tons moved through the Port of Houston, said spokesman Lee Vela. Of that, 56.7 million tons was foreign trade. Most of the rest probably moved through the waterway.

"The waterway links Texas all the way to Florida, and north, because of the Ten-tom Waterway. It makes us competitive with other ports," he said.

In its latest report, dated 1986, the highway department said the waterway is responsible for creating 145,000 Texas jobs, moving Texas-produced goods valued at $36 billion each year, and generating $70 million in state and local taxes.

The Corps of Engineers recognizes there is a problem. It has received funding for part of the first phase of a $1.5 million, seven-year study that might point to solutions. But time could run out for the beach at Sargent before the study is complete.

The options boil down to trying to save the beach, trying to "armor" the canal with something like a seawall, or rerouting it farther inland. Each is expensive.

Rerouting the waterway would cost perhaps $20 million, much of it state costs for right of way and half the dredging costs. But that might be the cheapest (and best) alternative. A seawall would cost $10 million a mile to build, and would eliminate much of the beach. Efforts to save the beach could cost about the same as rerouting, and might not work.

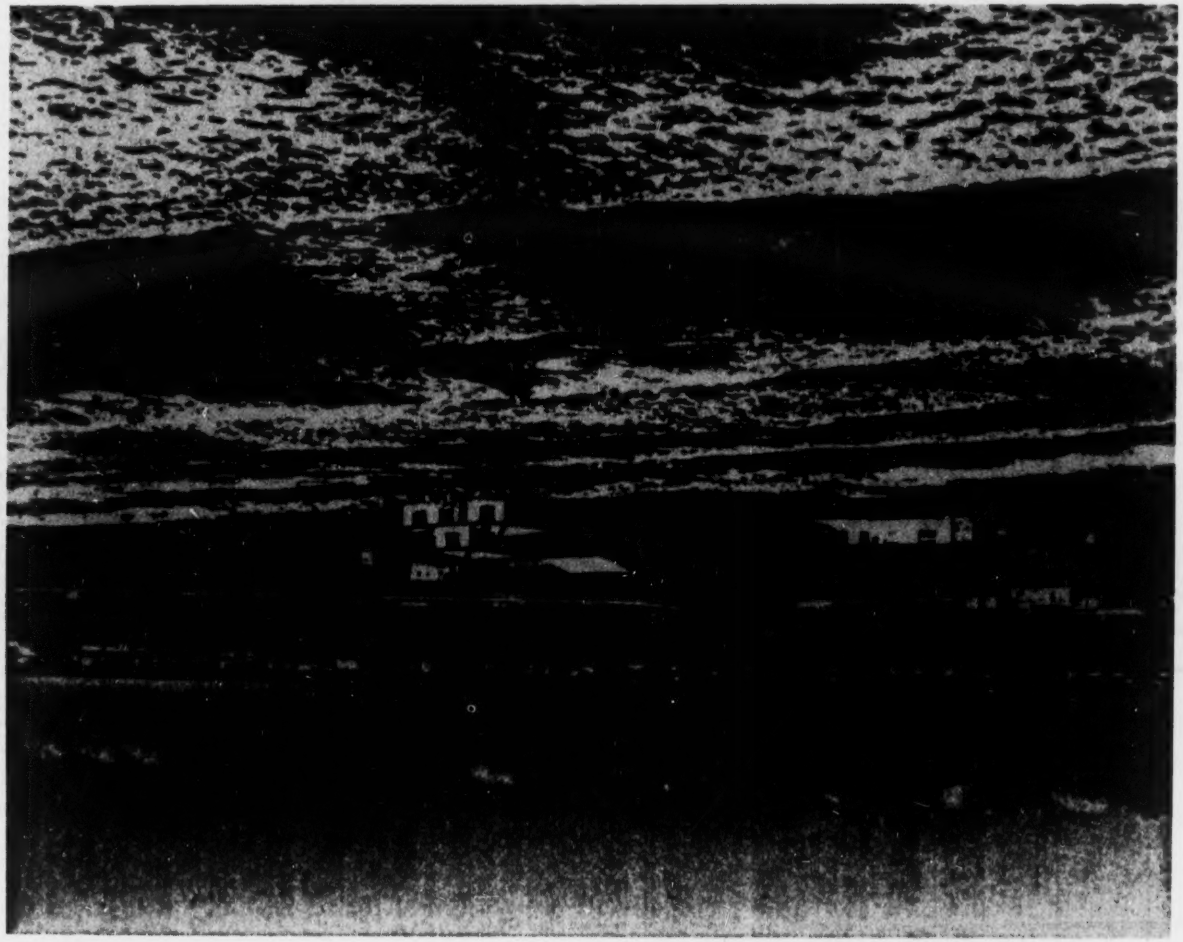
The Matagorda County Drainage District No. 1 last week set Dec. 20 to open bids for a contract to close McCabe's Cut, near Farm Road 475 south of Sargent, said George Deshotels, Matagorda County commissioner. The cut is the most immediate hazard to navigation. Work to fill it, estimated to cost $500,000 or more, will begin early next year.

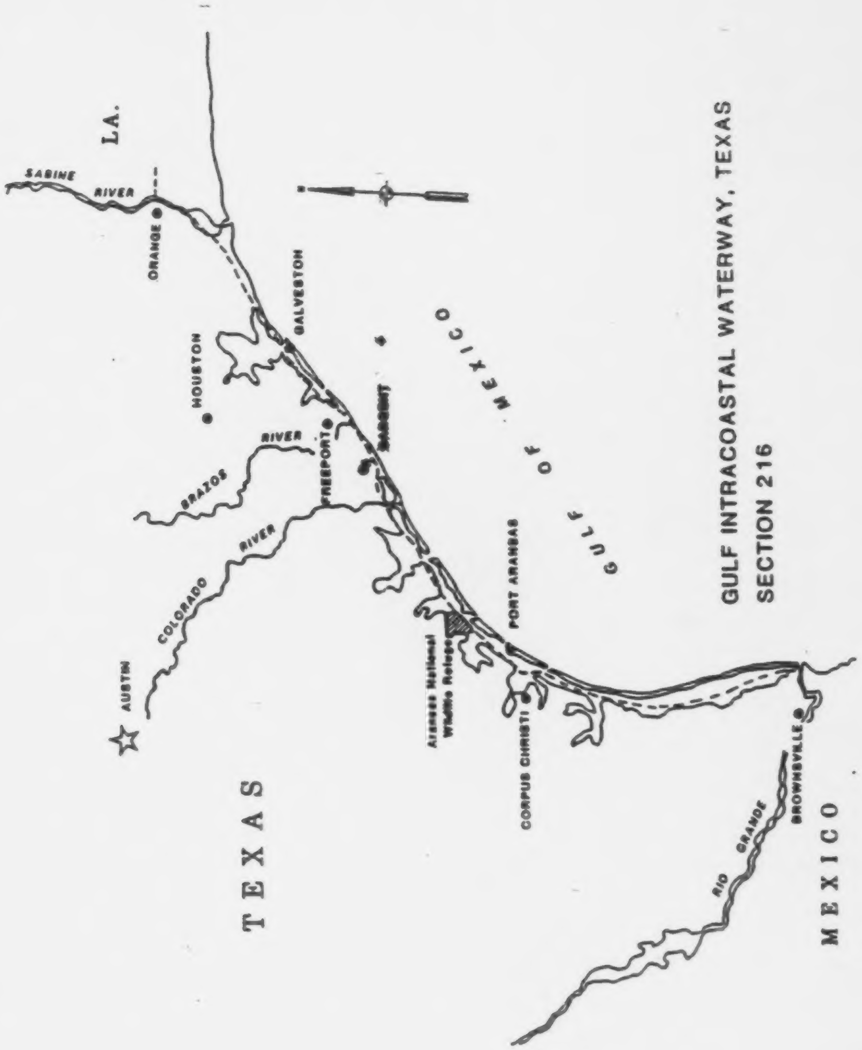
The cut was dredged as a drainage channel for Caney Creek under a 1983 permit, to a width of 30 feet and a depth of 3 feet.

Shoaling developed in the waterway, requiring emergency dredging contracts to be let for that section each year since 1986. The problem became more severe as tidal scowering made the cut deeper and wider, and as the land between the waterway and the beach became narrower and narrower.

The tidal currents sometimes become so strong that they set barges sideways. On the ebbing tide, at least one barge has had to ground itself on the edge of the cut to keep from being swept into the open Gulf of Mexico.

The problem is severe for traffic toward Freeport; barge operators have to line up on the passage created by the opening of the Farm Road 475 swing bridge. The current has caused several barges to strike the protective pilings around the bridge, with damage totaling almost $100,000.





LA.
SABINE RIVER
ORANGE
GALVESTON
HOUSTON
SARGENT
FREEPORT
BRAZOS RIVER
COLORADO RIVER
AUSTIN
Aransas National Wildlife Refuge
PORT ARANSAS
CORPUS CHRISTI
GULF OF MEXICO
TEXAS
BROWNSVILLE
RIO GRANDE
MEXICO

GULF INTRACOASTAL WATERWAY, TEXAS
SECTION 216

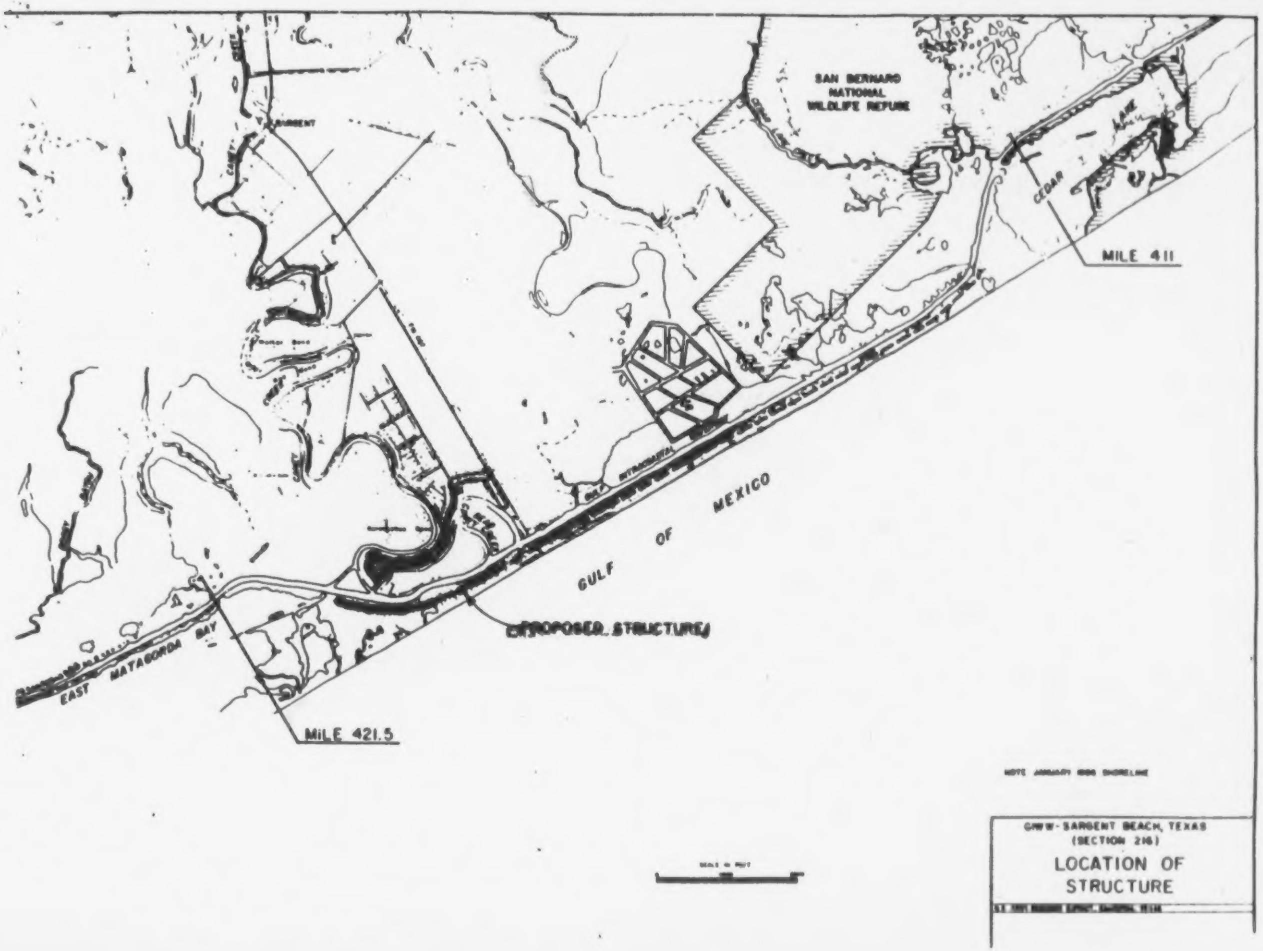
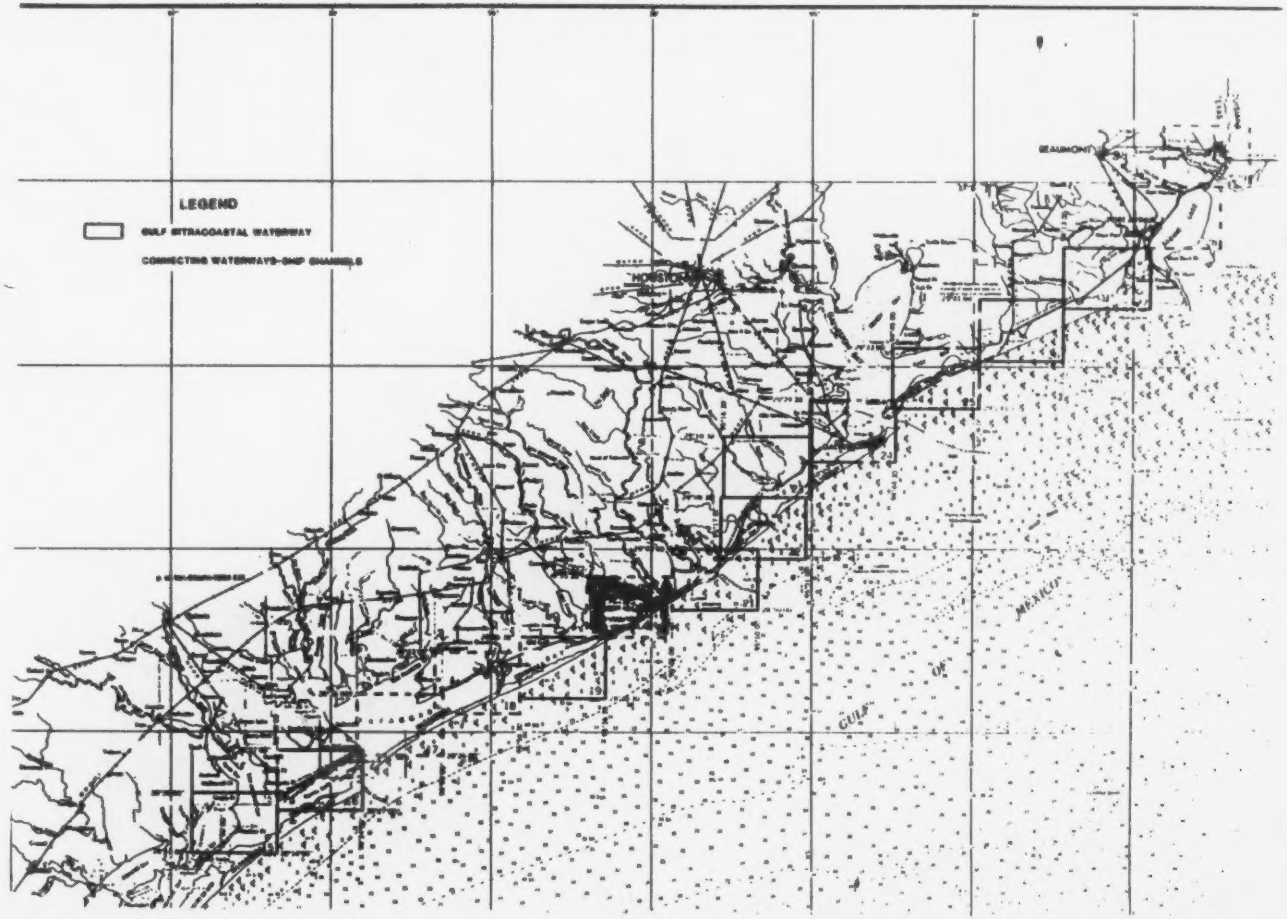
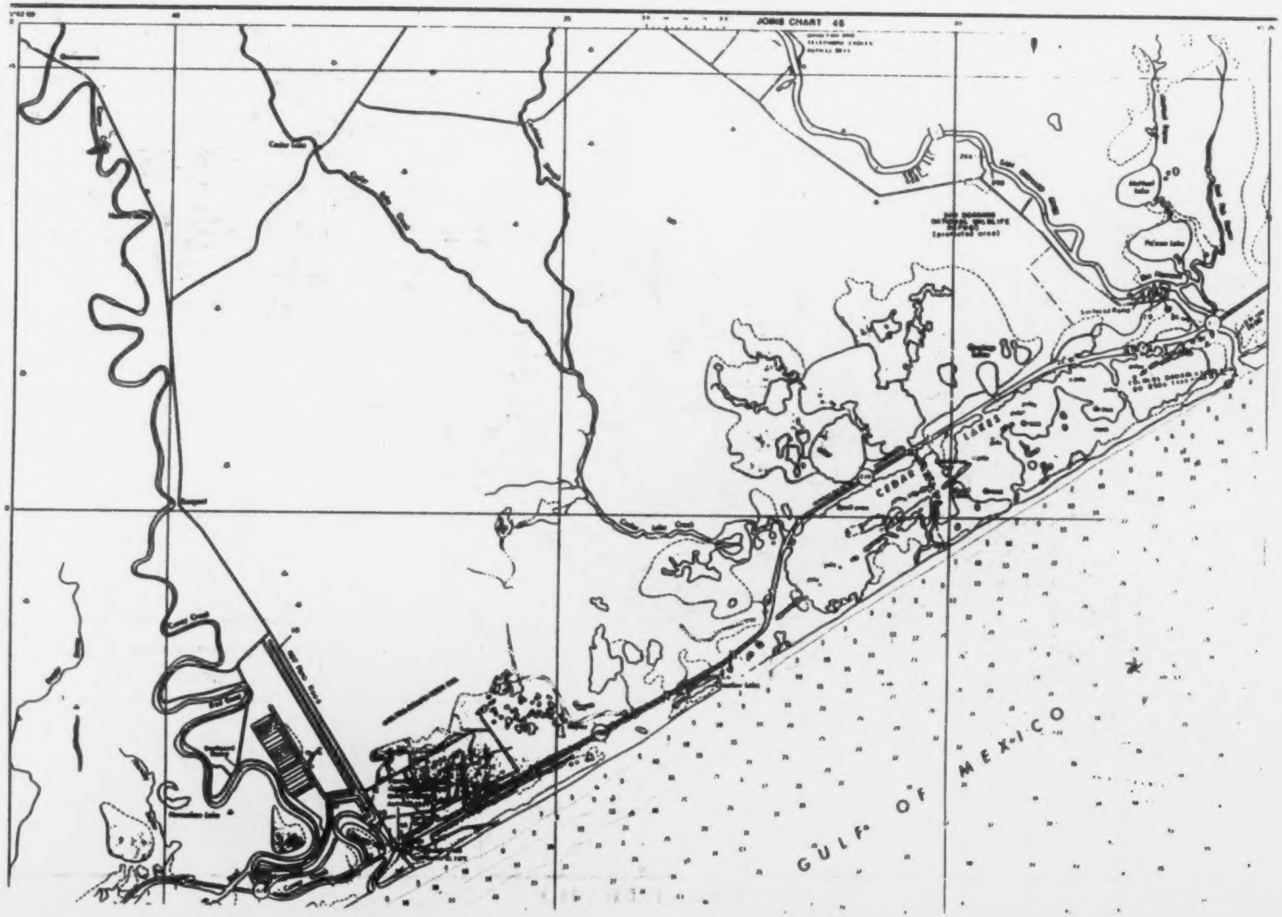

SAN BERNARD NATIONAL WILDLIFE REFUGE
CEDAR LAKE
MILE 411
SARGENT
GULF OF MEXICO
PROPOSED STRUCTURE
EAST MATAGORDA BAY
MILE 421.5
GIWW-SARGENT BEACH, TEXAS
(SECTION 216)
LOCATION OF STRUCTURE

CHART INDEX


LEGEND
GULF INTRACOASTAL WATERWAY
CONNECTING WATERWAYS-SHIP CHANNELS
BEAUMONT
HOUSTON
GULF OF MEXICO

GULF INTRACOASTAL WATERWAY


JONES CHART 46
CEDAR LAKES
GULF OF MEXICO

The Lone Star Link

The Gulf Intracoastal Waterway is an integral part of the total inland transportation system of the United States. Stretching more than 1,300 coastal miles of the Gulf of Mexico, this man-made, shallow-draft canal moves a large variety and great number of vessels and cargos. The 426 miles of the waterway running through Texas make it possible to supply both domestic and foreign markets with chemicals and other essential goods produced in the state.

This dynamic transportation system was slowly coaxed into reality by a number of key historical events. The discovery of the famous Spindletop oilfield near Beaumont in 1901 planted the seeds for development of such a major artery of maritime commerce. These seeds, nurtured by the visions of two young Texas businessmen as they ushered in a new century and a new era of fossil energy, soon took root.

A federal survey of the Texas coastline in 1874 had already proven the technical feasibility of such a waterway, and a second survey in the early 1900s confirmed that such a transportation system would serve not only the "black gold" but coal, rice, sugar and molasses, lumber, cotton and general merchandise as well.

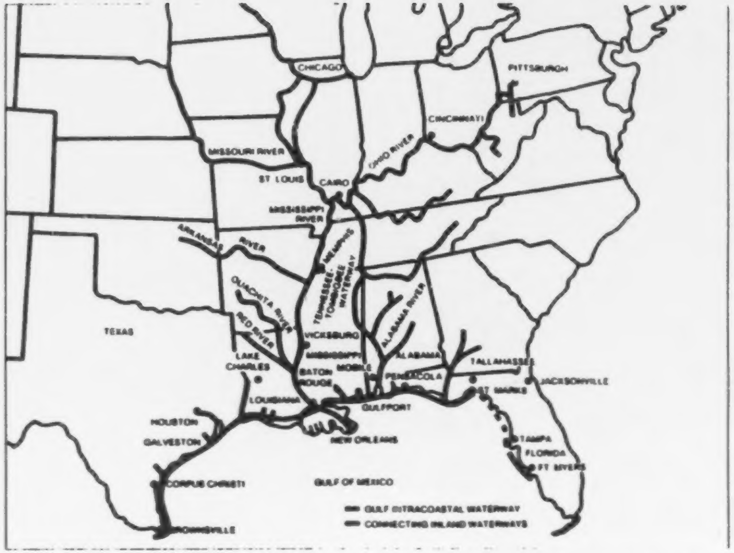
Construction began on the Texas Intracoastal Waterway in 1905 with canals dredged 5 feet deep and 40 feet wide from Corpus Christi to Aransas Pass, Aransas Pass to Pass Cavallo, and from the Brazos River to West Galveston Bay. These canals were finished in 1909. Although surveys were ordered for a continuous waterway from Boston to the Rio Grande, a plan for the whole system still did not exist in 1924.

The need for sheltered passage of troops and supplies during both World War I and World War II re-emphasized the importance of water transportation to national defense. A 9-foot channel terminating in Corpus Christi was pushed to completion in 1942 and a channel between Corpus and Brownsville was completed June 18, 1949, thus forming a continuous waterway from Apalachee Bay, Florida, to the Mexican border. At that time the waterway was dredged to its present dimensions of 12 feet deep by 125 feet wide.

By 1961, nearly 90 tributaries had been incorporated into the Gulf Intracoastal Waterway (GIWW) system, more than half of these in Texas and Louisiana. The addition of each tributary channel enhanced the value of the main canal by providing increased access and service to users.

Today, this inland waterway supports far more activities than those directly linked to manufacturing, oil production and commerce. The canal provides access to sport and commercial fishing by physically connecting the bay systems of the coast. It also has been used as a recreational outlet for boating, birding, water skiing and other leisure pursuits. These activities greatly enhance the economic and social value of the GIWW and will continue to do so as the public's demand for recreational pursuits remains strong.

Although direct users are well acquainted with the GIWW and its awesome accomplishments, there are many times more people who are unaware of the impact it has on their lives. A few noteworthy facts may help in increasing this understanding and appreciation for an unheralded Texas hero ... the Gulf Intracoastal Waterway.



Facts and Impacts

The inland waterway in Texas is conservatively credited with a direct annual economic impact of more than $3 billion from associated port revenues, payrolls and revenues of the water transportation industries and maintenance expenditures on the canal system by the U.S. Army Corps of Engineers.

The overall economic significance of the GIWW is further enhanced by the billions in documented revenues generated by recreation, tourism, sports and commercial fishing, which are directly and indirectly associated with the waterway but are not included in the impact total reported by the Texas Transportation Institute.

Barge transportation along the Texas portion of the GIWW is economical, efficient and safe. In 1986 nearly 73 million tons of cargo with an estimated value of $21.1 billion was moved along the GIWW in Texas. Bulk material handling and energy efficiency often make barge shipping six to seven times less expensive than rail and truck alternatives.

Throughout the GIWW's history, it has proven to be the least perilous method of transporting potentially hazardous commodities in the state, which, in turn, reduces risks to people and the environment.

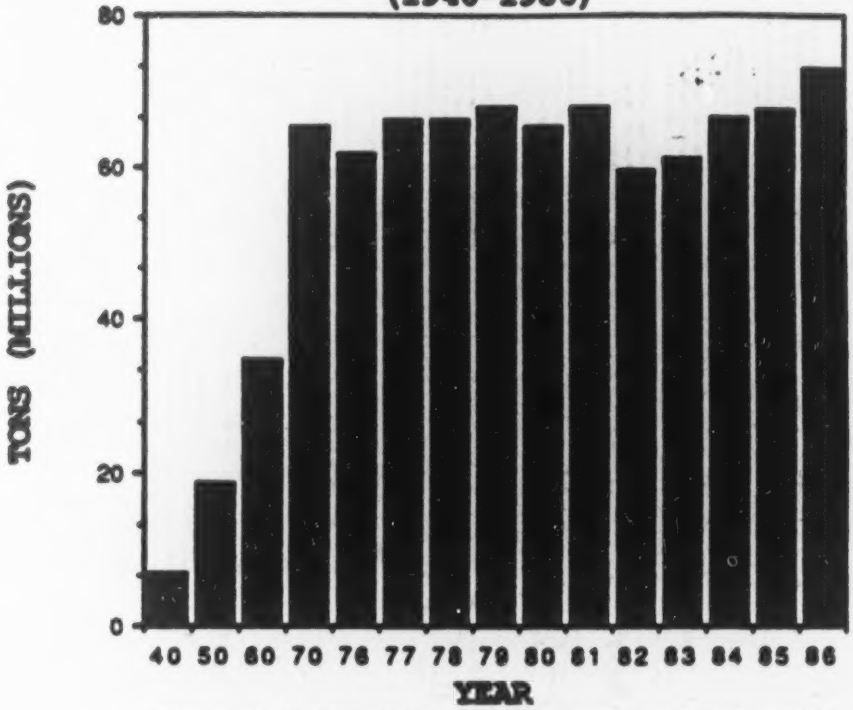
The attractiveness of water transportation is identified as one of the primary reasons that major industries have located along the Texas coast. Mining, chemical manufacturing and petroleum refining industries are the largest users of the Texas system, and the influence of these activities on the state's economy is staggering. These Texas industries employed 127,000 people in 1986 and produced an impact of $17 billion not including the more than $400 million in taxes paid to the state, counties, cities and school districts in the region.

Refineries and petrochemical plants are predominant along and near the Intracoastal Waterway because of the obvious transportation advantages it provides. The Texas coast has the largest concentration of such plants in the United States. These operations employ 82 percent of the industry's workforce in Texas, and are responsible for producing 60 percent of all synthetic rubber, 40 percent of all petrochemicals and 10 percent of all sulfuric acid in the nation.

According to the State Comptroller's office, the Texas coast will reap the benefits of 150 petrochemical expansions in the near future, and this does not include the $1.1 billion Formosa plastics plant to be built at Port Lavaca. Waterway shipments are vitally important to the growth and vitality of these enterprises and allied ventures — generating new jobs, diversifying our economy and strengthening local tax bases.

In the big picture, the Texas link of the GIWW is a premiere part of the nation's marine highway network that carries chemical, petroleum and mineral feedstocks to America's industrial heartland. Without access to a fully operational waterway system, industries in Texas and throughout South and Middle America may face the prospective loss of the enviable competitive edge they gain from affordable and convenient transportation. Also, the delivery of Texas commodities via the canal to major Gulf ports for collective shipment to foreign ports helps our balance of trade with other nations. This is particularly true for chemical exports, which is a major factor in the reduction of the U.S. trade deficit.

TONNAGE HANDLED ON GIWW
(1940-1986)



Source: U.S. Army Corps of Engineers, News Release, 1988, and Texas Almanac, A.H. Belo Corp., 1988.

1986 TEXAS GIWW COMMODITY FLOW AS PERCENT OF TOTAL TRAFFIC AND VALUE

COMMODITY CLASS	SHORT TONS	%TOTAL TONS	%TOTAL VALUE
01 FARM PRODUCTS	322,601	0.44%	0.35%
09 MARINE PRODUCTS	976,968	1.34	.27
13 CRUDE PETROLEUM	11,922,344	16.33	7.34
14 NONMETALLIC MINERALS	2,542,540	3.48	.74
28 CHEMICALS AND PRODUCTS	20,974,786	28.74	55.88
29 PETROLEUM AND COAL PRODS	32,198,298	44.11	27.05
40 WASTE AND SCRAP MATERIAL	1,829,952	2.51	.90
OTHER	2,221,921	3.04	7.46
TOTAL	72,989,410	100.0	100.0

Source: United States Department of the Army, Corps of Engineers. Waterborne Commerce of the United States, Calendar Year 1986, Pt. 2. New Orleans, 1988.

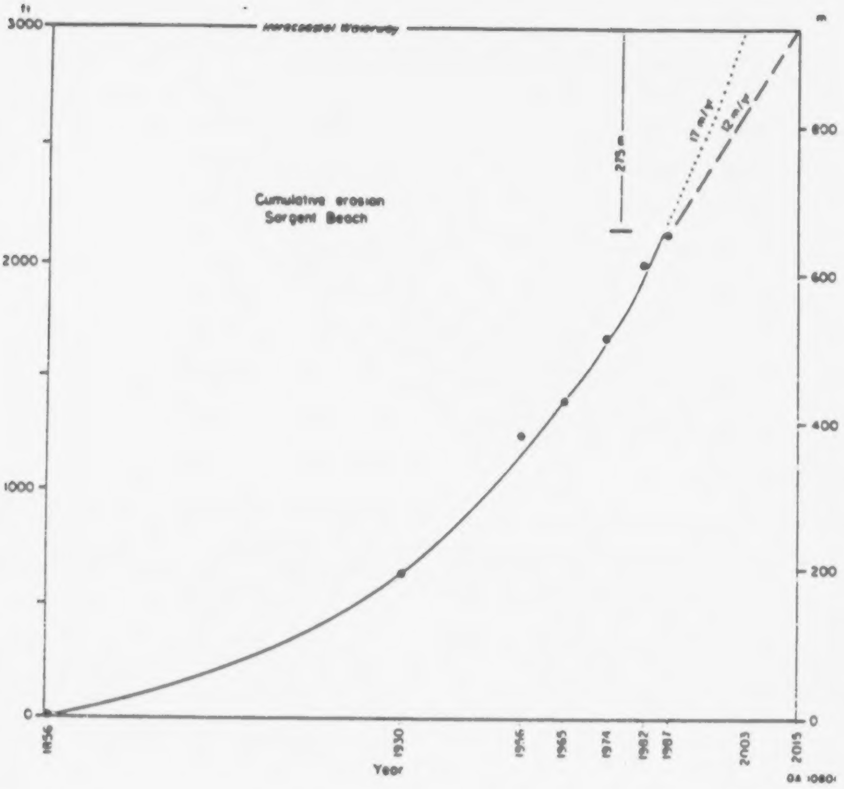
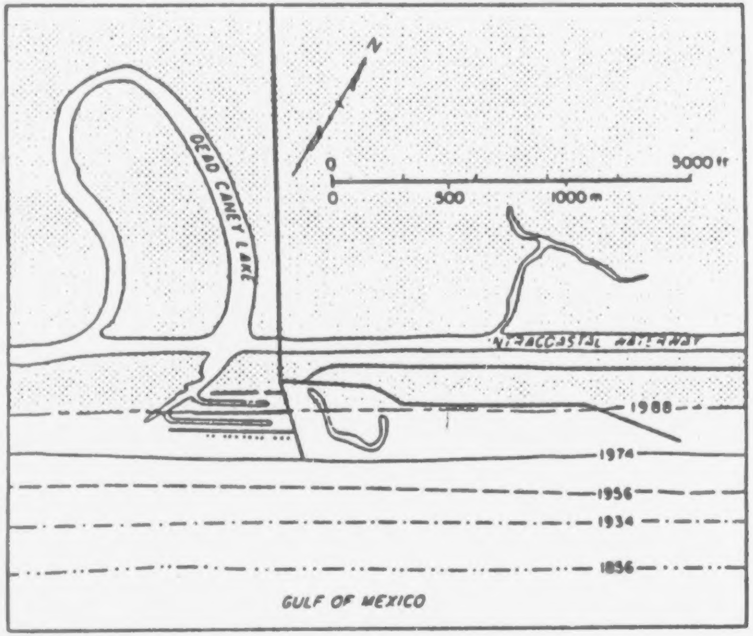


Figure 3. Recent acceleration in rates of shoreline erosion at Sargent Beach. From Pilkey and others (1989).

Figure 2. Historical shoreline changes at Sargent Beach between 1856 and 1988. From Pilkey and others (1989).


N
0
500
1000 m
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DEAD CANEY LAKE
INTRACOASTAL WATERWAY
1988
1974
1956
1934
1856
GULF OF MEXICO

SEA GRANT COLLEGE PROGRAM

TEXAS SHORES

STAND BY FOR SHORE LEAVE

Gone. But was here just the other day.
Yes, indeed, erosion is edging in and it's
beginning to take a toll on Texas

TEXAS SEA GRANT

MUDDY WATERS

Sargent Beach is without question the most severe erosion problem on the Texas coast.

STORY AND PHOTOGRAPHY BY NORMAN MARTIN

LEANING BACK IN A POOFY, OVER-STUFFED LAWN CHAIR, BILL Templeton glumly sits on the deck of his beach house, waiting for the sea to call. Like most residents of Sargent Beach, he knows the Gulf of Mexico's low, pounding waves are coming all too soon.

Today erosion rates at Sargent are more than 100 feet a year. In the past two decades most of a small subdivision that used to front the Gulf has been left hundreds of feet offshore by the eroding beach line.

Anger often heats the air as Sargent Beach residents lament the loss of their land values. "Lots on the Sargent Beach tax rolls are $250 a piece," Templeton says. "On Matagorda beach, 18 miles down the coast, those same 50- by 150-foot lots are $10,000."

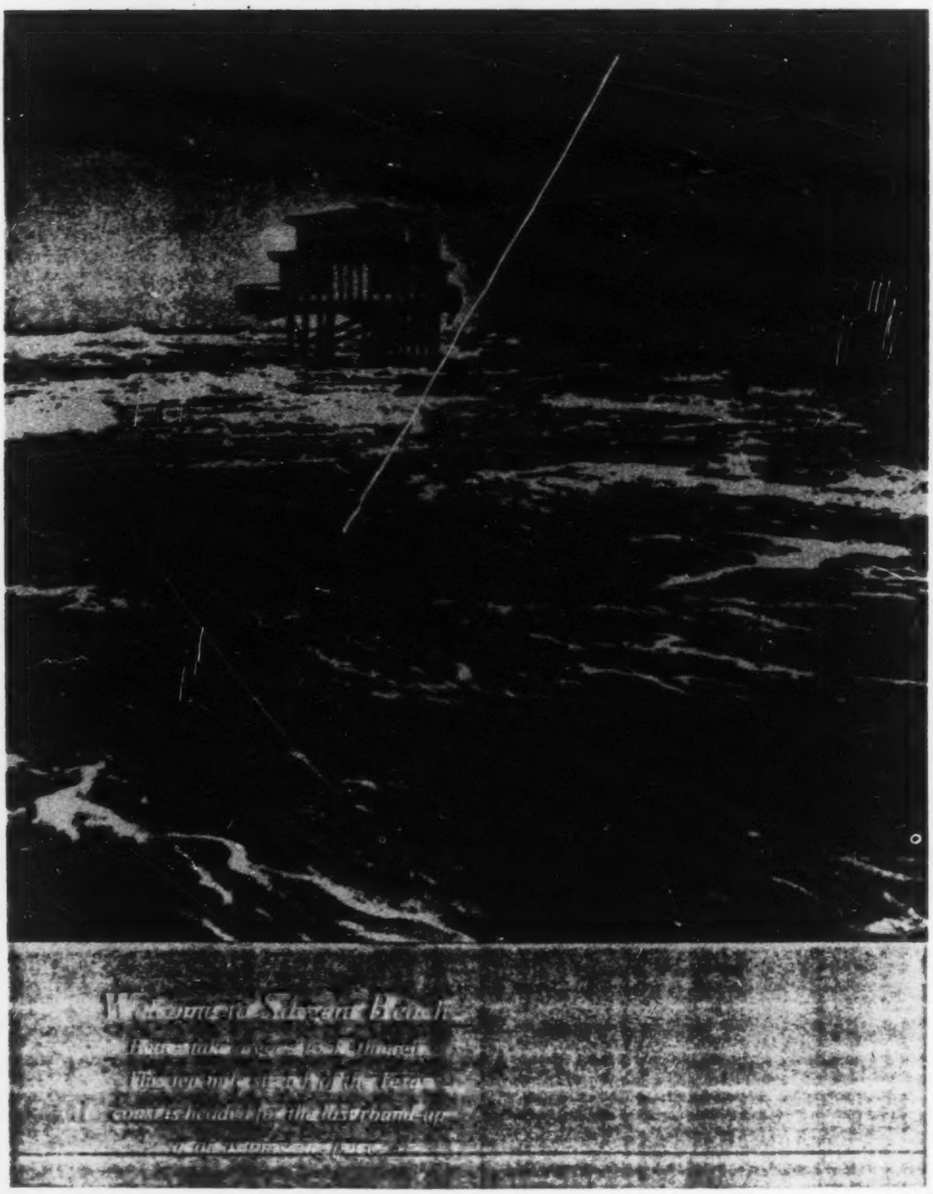
It galls Templeton that apparently there's nothing to stop the water from continuing to shear piece after tiny piece of the beach away. "We can't sell and we can't get any help," he says, bitterly.

Since moving to Sargent Beach, Templeton has seen the length of a football field vanish in front of his home. And, coastal geologists say the pace of erosion is increasing, so much so that the state's main coastal waterway is now endangered.

"It is without question the most severe erosion problem on the Texas coast," says Bill Wooley, a Galveston-based planning chief with the U.S. Army Corps of Engineers.

Just 30 years ago Sargent had a broad beach and a seemingly bright future. Row after row of beach homes dotted the shores. But the foundation that most homes were built on was not sand, but mud from an ancient river delta. And that mud means the end of Sargent Beach.

When a sandy beach is eroding, part of that sand eventually feeds other downdrift beaches. When mud erodes, most of that volume is a true net loss. Between 1852 and 1987, Sargent lost more than 2,000 fee


Welcome to Sargent Beach
Hurricanes take [illegible]
The ten-mile stretch of the Texas
coast is headed for the last round-up
[illegible]

to erosion, as millions of cubic yards of mud h been carried seaward by tidal currents.

Accelerated erosion levels, caused by the daily scouring action of waves, have brought the encroaching sea to the doorstep of the Gulf Intracoastal Waterway. Marine experts say this process, more so than the loss of beach homes, is of paramount importance to Texans.

Through sheer historical coincidence, the canal is located in its closest position to the Gulf shoreline in the same area where the erosion rates are highest. The exact moment they will fuse isn't known. Geologists and marine specialists say a variety of elements must be factored. Still, "by 2003, if things go as they have in the past, we should not even have a beach isolating the canal," says Texas Sea Grant Marine Agent Willie Younger. "The locals shoot for a date around 1995."

More than 60 million tons of cargo make their way annually along all or a part of the Gulf Intracoastal Waterway that stretches in the Texas portion from Sabine Pass in East Texas to Brownsville at the southern tip of the state. "There may very well be an impact far beyond this area," says Capt. Austin Yegar of the National Oceanographic and Atmospheric Administration in Washington. A key factor in Sargent's predicament is simply the magnitude of the problem in terms of length of coastline at risk – about 10 miles.

By no means is this the first warning researchers have heralded concerning Sargent Beach. "This problem on the beach has been studied to death," says U.S. Rep. Mac Sweeney of Wharton. Wooley, the Corps' planning chief, adds, "Matagorda County has experienced problems along the Gulf shoreline as far back as records are available." In 1973, a Texas A&M University study by William Seelig indicated the beach had eroded at an increasing rate since at least 1930. "Sargent Beach will continue to erode with a minimum shoreline retreat of 30 feet per year, if the present factors remain in effect," Seelig said. They did. It did.

The big question is who, if anyone, will fix the problem? But determining who can or will fix the problem is the equivalent of a financial version of Abbott and Costello's "Who's on First" skit. Nevertheless, the upshot is all parties – federal, state and local – will have to ante up, and in these hard times that prospect is not popular. While the state may support the plan, Al Luedeke, planning engineer for the Texas Department of Highways in Austin, says the Corps is responsible for keeping the waterway open. "That is who we're going to rely on for survey and reconnaissance and, ultimately, for a solution to the problem."

Col. John Tudela, head of the Corp's district headquarters in Galveston, says, "I'm sympathetic to the problems at Sargent Beach. Our responsibility is to keep the waterway open. We've done it in the past and will do it in the future." Getting on track may well be difficult, though.

The Sargent area has an unusual feature that is the foundation of its present woes. Several thousand years ago, large volumes of sediment poured out of the massive forerunners of today's Brazos and Colorado rivers. The Sargent area is, in general, the result of the meeting of those two main river systems.

In short, unlike other parts of the Texas coast, the base for the beach is not sand. It's mud – river mud. Because it's mud, the Sargent area has been retreating for several thousand years.

Several physical factors make Sargent a prime earthmover. The area has an irregular shoreline of principally exposed mud. Nature abhors these types of irregularities. It always wants to smooth things out.

The composition of the mud is only 10 to 15 percent sand, so there is little remaining sand to replenish the beach. The Sargent area's only principal source of sediment is the Brazos River, which lies to the northeast. Waves and currents tend to transport the sediment to the southwest. But scientists know from sediment sampling programs, beach conditions and a general lack of sand offshore, the Brazos isn't contributing all that much today. Indeed, the little sand that's available to the beach more often than not ends up on land behind the beach, rather than on the beach itself.

While erosion has been eating away the shore for millennia, marine researchers say the process has been accelerating the past 50 years. Previous studies suggest that between the mid-1800s and 1930 there was a balance between the areas that were eroding and the areas that were stable or advancing. But more recently there has been a shift toward the side of erosion. The rate jumped from 10 feet in 1930 to 20 feet in 1970. In the next decade levels red lined at 40 feet a year and between 1981 and 1985, the loss was some 60 feet a year.

Meanwhile, coastal legislators say they have trouble getting their land-bound peers aboard a plan to aid Sargent and the waterway. State Sen. Tom Uher (D-Bay City) says, "Those of us who live on the coast know the importance of this water system to our economy. But money

[illegible] the Gulf Intracoastal Waterway [illegible] on the beach [illegible] coastal [illegible] community (center top and middle) [illegible]. Signs of erosion [illegible] exposed footing (top right) are a reminder of the [illegible]. The problems of Sargent Beach are being addressed by several [illegible] including Bill Templeton of the Sargent Chamber of Commerce (bottom right), State Senator [illegible] (center bottom), U.S. [illegible] Mike Sweeney (bottom center), Col. John Tudela (bottom left) and Texas Land Commissioner Garry Mauro (bottom, far left).

appropriated to the Intracoastal Waterway is simply not looked on as a priority item."

In the last two legislative sessions the Texas General Land Office has requested $190,000 for pilot erosion control projects in the Sargent Beach area. They were not funded. About the only money the Land Office was able to provide was $10,000 from a specially created fund called a "damage fund" in which individuals are fined for damaging state lands in the process of petroleum drilling.

The Land Office also chipped in another $10,000 to the Gulf Coast Erosion Control Committee of the Soil and Water Conservation Districts for six pilot projects. "We intend to take the results of those pilot projects back through the appropriations process and try to get it fully funded," says Texas Land Commissioner Garry Mauro.

The scope of Sargent Beach's problem isn't likely to be solved by $10,000, though. Big money and extensive expertise will have to come from somewhere, and all participants give the nod to the Corps. But they can't act on their own.

All Corps activities originate as the result of efforts of local congressmen or senators who introduce resolutions before Civil Works Committees. This first phase consists of a preliminary evaluation, at federal cost, by the Corps to provide an early look at the engineering problems and possible solutions. The second phase includes a cost-shared study that serves as basic information for use of Congress for authorization. Ultimately, construction is funded by Congress.

"Until the process is changed, we must work within the existing laws and regulations," Col. Tudela says. It is a process that can take decades, despite new efforts to reduce project con[illegible]tion timetables. So, without funding, the Corps can only monitor the situation and offer technical assistance.

Some would prefer the Corps to move a little faster. The preferred option by individuals who want immediate action is the "special appropriation" legislative route. That translates, in bureaucratic terms, to five to eight years. Essentially the method circumvents the regular congressional process, which may take as long as 10 to 15 years. In this method, a special appropriation would immediately go to the appropriations committee where it must be established as a genuine emergency.

Criteria include a pressing and compelling call to action. But congressional observers point out that congressmen on the appropriations committee come from a broad range of backgrounds and diverse parts of the country, and they must agree that this situation is indeed a national emergency requiring immediate action. The process is, of necessity, arduous because it is designed to slow pork-barrel legislation tendencies.

"The chances of success of that route are about one in fifty," says Rep. Sweeney. And in every case where that route has been successful, it requires that the Corps come forward and agree that this is indeed an emergency and agree it requires emergency action. That prospect is not likely, Sweeney says.

"The Corps has projects across the nation and they do not want to get up front on any one project since it sets a bad precedent. That's not to say it hasn't been done, or that it can't be done," Sweeney says.

Then there's the traditional, and much-maligned, Corps study approach. This is usually judged on a long time scale with a minimum of about 14 years until something is actually done on the ground.

"The tried and true method is the study," Sweeney says. "It's the traditional way of doing business. It's also a very lengthy process.

"When the Corps says they are going to go forth and solve this problem, people are starting to recognize that might mean 20 years later," Sweeney says. New legislation and the new Assistant Secretary of the Army have directed the Corps of Engineers to streamline and expedite the time it takes to do their projects.

Corps' Planning Chief Wooley believes the "study" method is the mechanism where federal assistance can ultimately be provided. The first phase of the study referred to as the reconnaissance phase is at federal expense and would be completed in 12 to 18 months.

Should the study conclude that there is a likelihood of a project economic feasibility, then an agreement between the federal government and a local sponsoring agency to share the cost of the feasibility studies equally would have to be accomplished. Cost-sharing is also involved in design, construction, and maintenance. The outcome of such a study is difficult to predict as a number of alternatives, both structural and non-structural, will be considered during the study.

One unlikely alternative is local erosion control. In short, the tiny Sargent Chamber of Commerce and the roughly 1,000 local residents would bear the cost of private construction. Private projects have been done, but these projects are generally frowned upon by the government.

Another rather ominous aspect from a development perspective is the possibility that the Sargent Beach area will be included in the Coastal Barrier Resources System, which precludes the use of federal funds for projects such as Sargent Beach. The law would prohibit any new activities such as beach restoration or rerouting the canal. It would, however, allow for maintenance activities associated with the waterway, including dredging.

There would be no additional activity of any kind to help prevent further erosion. Essentially, the Coastal Barriers Act mandates that nature take its course. That would mean the erosion would take its course without any interference by individuals or government agencies.

There are several possibilities when it comes to the actual construction. One is beach replenishment – actually building structures to stop or slow the erosion. "We know there's not that much material in the system, and coastal structures, in part, depend on sediment supply. You must deal with them together," says Dr. Robert Morton, a geologist at The University of Texas at Austin.

"You could go out there and put in a seawall, and put additional sediment seaward of the structure in an attempt to hold the shoreline in its present position. But that project ends somewhere. And where it stops there will be additional erosional problems," Morton says.

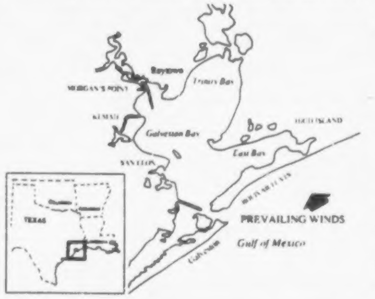
Another method is beach nourishment. Traditionally the Corps has favored this technique because it is less expensive and easier to do. But the approach requires a ready supply of sand.

One long-term solution is re-routing the waterway. Re-routing the intracoastal canal simply shoves the problem off into the future, Morton says. "But that isn't necessarily bad." The distance between the Gulf shoreline and a re-routed Intracoastal [PLEASE TURN TO PAGE 27]

BEAUTY AND THE BEACH

[CONTINUED FROM PAGE 6] ocean engineer, believes the causes are linked to a combination of wind-generated currents, storm surges and the very fine sediments that make up Matagorda Bay.

Now there is evidence that erosion isn't just occurring on the beach itself. Dr. John Kraft, a geologist at the University of Delaware and a Sea Grant research scientist, says coastal residents may be seeing only a fraction of what is eroding.



HIGH EROSION AREAS ON GALVESTON BAY

In his examination of Delaware's nearshore waters, Kraft discovered that the beachface was eroding 325 yards offshore in 30 feet of water. Previously, many coastal specialists assumed sand placed on the beaches during beach nourishment projects helped restore a gentle slope to the underwater beachface by making more sand available to the system.

In Texas most shore erosion is due to the action of waves removing sediment from the shore. The two most important factors in the landward movement of the Texas coast are the overwash of water and sediments and the formation of inlets. Storms cause both phenomena. During severe storms, like the occasional hurricane that roars ashore, the beach and nearby dunes are topped by high water and waves.

All this wind and wave energy has to act against something, and in Texas that material is the fine sand typically found on Gulf beaches, and the silt or clay usually found on bayshores. In some limited areas, other materials receiving the brunt of nature's power include oyster shell or gravel. Dominant winds along the Texas coast come in two varieties. One is persistent southerly or southeasterly winds from March through November. And, two, are the periods of strong north winds from December through February. Apparently, erosion strongly depends on the exposure of the shore to these dominant winds.

Texas has three principal points where the shoreline, both through recent geological and historical time, has been continuously eroding. Those areas are between Sabine Pass and Bolivar peninsula, the central coast near the Brazos River, and on South Padre Island. All three areas have similar geologic conditions.

On Padre Island, the long- and medium-term annual erosion rates average 8.25 feet and 9.24 feet respectively, largely because of daily wave action, says Dr. John Giardino, a Texas A&M geomorphologist.

But erosion rates soar with the onslaught of a major hurricane. Giardino and his research team discovered that Hurricane Allen's 1980 trek inland ripped away 12.2 feet in just 48 hours. However, he says, following these spectacular changes, normal conditions reversed the general order of change and repaired the damage. "Then they resumed their persistent, but less spectacular, processes of coastal modification," Giardino says.

Matagorda Bay has a long history of erosion. In his report on the Matagorda Bay area, Dr. Joe McGowen, a geologist formerly with The University of Texas Bureau of Economic Geology, indicated that in a 100-year period of historical monitoring between 1856 and 1957, some 8,450 acres of land were lost by natural erosion of Gulf and bay shorelines. During the same period, only 615 acres of land were gained through natural accretion, the creation of new land. McGowen found that Gulf shorelines had experienced the greatest amount of erosion.

But it is Galveston Bay's erosion that many state and local officials fret over the most. Almost three-fourths of the state's coastal population live in the surrounding counties. In addition, it is the largest of Texas' seven major estuarine systems, providing nursery and spawning grounds for some 30 percent of the total fishing products harvested from the Texas coast.

For Galveston Bay, the Trinity River is a main source of sediment, although other sources include the San Jacinto River in upper Galveston Bay and numerous smaller creeks and streams. Lower rates of sediments have been rolling down river, though. Intense reservoir construction within the Trinity River basin is usually blamed for the downstream sediment decrease.

Galveston Bay's modern erosion history dates back to the turn of the century. In 1935, the Corps published a shoreline erosion study indicating that retreat of the west shore averaged 75 feet between 1915 and 1934. Meanwhile, several longtime residents reported 600 feet of erosion between 1900 and 1934 and the loss of entire city blocks during their lifetimes.

A national shoreline erosion study published by the Corps in 1971 included the entire Galveston Bay system. The study revealed that western Trinity Bay, eastern Trinity Bay near Double Bayou, northern East Bay, the shores of Lake Anahuac, and much of western Galveston Bay between April Fool Point and Morgan's Point were either "critically" or "non-critically" eroding, depending on the rate of shoreline retreat and property value.

In 1983, the Corps published another study of erosion along Galveston County bay and Gulf shorelines. Observations made during the study and statements from residents suggested that the long-term erosion rate near San Leon increased from about 4 feet per year between 1850 and 1933 to about 5 feet per year since 1933.

In a recent report, University of Texas geologists add that most of the shoreline within the Galveston Bay system retreated between the early 1850s and 1930. The primary reason was wave action, weathering and eventual failure of many ancient Pleistocene bluffs, as well as the relative loss of ground elevation due to minor sea-level rise and compaction of the thick sedimentary section underlying the coastal plain.

Still, two areas actually did win the erosion battle and moved forward. They were the Trinity delta and the southwestern tip of Bolivar Peninsula.

Currently, the Corps is proposing initiation of a congressionally authorized Matagorda County Shore Erosion Study, and recently completed a study of Galveston County erosion problems.

"We periodically monitor the shoreline conditions, but without specific congressional authorization we have no means to attempt to reduce it," says Col. Tudela, Corps district engineer.

Meanwhile, there are cosmic questions to consider. Some marine scientists believe global changes in climate since the last glacial stage have indirectly affected positions of bay shorelines. But overall, climate is generally considered by coastal geologists as the least important contributor to historical shoreline changes.

"It isn't just because of human activity that the beach is eroding along the Texas coast. That erosion began a long time ago," says University of Texas geologist Morton. ■

SARGENT BEACH

[CONTINUED FROM PAGE 12] Waterway is about 7,000 feet. "Even with the highest rates of erosion, that's still about 100 years from now. If we shove it off that far into the future and the waterway becomes threatened again, then it isn't this streach at Sargent Beach that is at risk. It would be the entire stretch from Port O'Conner to Galveston Island."

Texas Department of Highways' Luedeke says, "Relocation is going to be a very expensive operation, if that's what is decided." The non-federal sponsor, of course, is responsible for purchasing any right-of-way that's involved in a relocation effort. There is some expensive right-of-way involved.

The real kicker is that federal rules require the non-federal sponsor, in this case the state, to share on a fifty-fifty basis any capital improvement associated with a relocation, such as widening or building new locks, dams and structures on the canal.

"If it costs $20 million to move the waterway away from this problem, that's $10 million dollars to the state of Texas, plus the right of way," Luedeke says. "We have no way now of knowing how much money that is." Luedeke points out that money has to come from the state's general fund. It cannot come from the state highway fund, since that money cannot be used for general state purposes.

"Texas has a real funding problem. That's one of the aspects that we must keep in mind when discussing moving it as an option," Luedeke says.

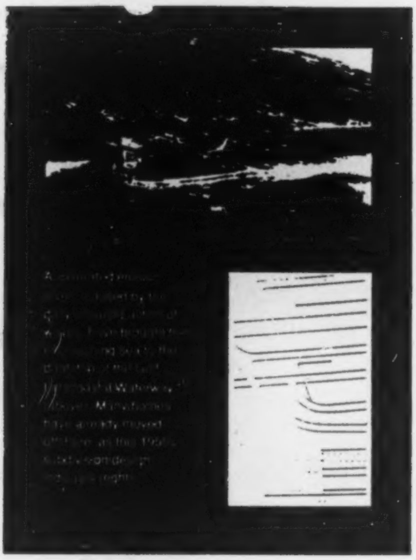
The highway department got the job of policing the waterway in 1975 when the state legislature passed the Texas Coastal Waterway Act. This act authorized the State of Texas to act as the local non-federal sponsor of the Gulf Intracoastal Waterway in Texas and designated the department to act as the agency for the state in fulfilling the responsibilities of the non-federal sponsor.

Meanwhile, the Corps is attempting to analyze the Sargent area in other ways. For instance, section 216 of the 1970 Flood Control Act provides the authority to reanalyze completed projects where conditions have changed during the project's life.

"We've requested funds to evaluate specific needs along the waterway, especially in the Sargent area," Wooley says. "This study will re-examine at the entire waterway in light of today's conditions and that which can be expected in the foreseeable future."

The type of equipment now using the waterway is significantly different from that used in the 1940s. Barges are bigger, towboats more powerful and tow configurations have changed. All the while the waterway's dimensions and curves have remained essentially the same.

State officials estimate some 20 percent of the Texas gross state product is linked to this narrow stretch of water. And more than 145,000 jobs are involved when the major industries affected by the waterway are considered. Water transportation alone in Texas employs some 22,000 people.



By far, barges are the most economical way to move chemicals, a prime product of the Texas coast. Chris Castoro, a marine transportation officer for Hoescht-Celanese Group, says, "That's the way we move it and that's the way we'd like to continue to move it. That's why this isn't a local issue, it's a national issue."

The waterway not only links Texas deepwater ports, but connects the state's crucial oil and petrochemical industrial complex to midwestern markets. Besides massive amounts of crude petroleum and residual fuel oil, other shipments seen daily on the waterway include basic chemicals, gasoline and distillate fuel oil.

"Once that beach is lost at Sargent, it's gone forever," says Sea Grant's marine agent Younger, who has watched the steady march of the sea for the past 10 years. "It's not a short-lived phenomenon. It's something we're going to have to live with from now on." ■

McCABE'S CUT

[CONTINUED FROM PAGE 13] there was no outlet to the Gulf. Brown Cedar Cut, which is much farther down the bay, is open only during storms or when the water level is significantly high in the bay.

Last December the Army Corps notified the drainage district that the cut had exceeded its permitted dimensions and was impacting a federal project, the Gulf Intracoastal Waterway. "The drainage district was requested to provide a plan to bring the cut back in compliance with permitted dimensions," says Rochen with the Army Corps.

"That cut is accelerating erosion and setting up conditions to create an accident," adds Capt. Robert Mason, a U.S. Coast Guard marine safety officer in Galveston. If a major pollution case were to occur at the cut, he says, the Coast Guard would in all likelihood move against the barge operator under the guidelines of the Water Pollution Control Act.

"The barge operator is going to go against somebody locally to help cover his costs. And that's going to be somebody who helped dig that drainage ditch," Mason says. "Something needs to be done before somebody bangs into the bridge and we've got oil or chemicals all over the place."

Needless to say the drainage district officials are racing to find an alternate drainage site farther down in the Matagorda Bay system. The hold-up is gaining the consent of a variety of local, state and federal agencies, including the County Commissioners Court, drainage district officers, Army Corps representatives, and state and federal wildlife and fisheries personnel.

The drainage district has already produced a preliminary plan that includes a new opening to the Gulf across the extreme eastern end of East Matagorda Bay and connects with the intracoastal waterway. The location would be between McCabe's Cut and Brown Cedar Cut. If the new opening is permitted, McCabe's Cut would then be closed. Tentatively, construction is scheduled to begin this summer. ■

ECONOMIC IMPACT OF THE GULF INTRACOASTAL WATERWAY SYSTEM IN TEXAS

prepared for

The Texas Sea Grant College Program

by

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The Texas Transportation Institute
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I. EXECUTIVE SUMMARY

The Gulf Intracoastal Waterway System in Texas carried almost 73 million tons of commodities valued at over $21 billion in 1986. The total revenue directly attributable to the GIWW was conservatively estimated at $3.1 billion in this same year. Port revenues accounted for 47% of this total; the payrolls and revenues of the water transportation industries comprised 52%; the remainder was derived from maintenance expenditures on the waterway by the U.S. Army Corps of Engineers.

About 110,000 jobs in the State of Texas are either directly or indirectly related to the shipment of goods through the Port of Houston alone. In 1986, 31% of all goods which moved through the Port of Houston travelled via the inland waterway system. Almost 20,000 Texans were employed directly by the water transportation industries. Coastal mining and manufacturing firms, which are heavily dependent on low-cost water transportation, had almost 127,000 employees on their payrolls in 1986. Sport and commercial fishing, and recreational activities created over 48,000 jobs state-wide; contributing up to $675 million in State personal income in 1986.

The value of payrolls and expenditures of the chemical, petroleum refining, oil and gas extraction, and non-metallic mineral industries located in the coastal region has an important economic impact on the State. These four industries combined produced an impact of almost $37 billion in 1986, not including over $400 million collected in tax revenues.

Preserving these economic benefits to Texas and the nation should be one of the State's highest priorities. Continued maintenance and support of the GIWW in Texas are necessary to assure that the waterway remains a viable, productive mode of low-cost transportation for the many essential goods imported to and exported from Texas. Regrettably, uncontrollable forces of nature stand poised to diminish the economic capacity of the waterway.

These forces take the seemingly benign form of softly breaking waves and gradual coastal subsidence, which combine to create severe erosion problems along the coastal region, seriously jeopardizing the future productivity of the GIWW. Action should be taken immediately to ameliorate these threatening conditions. A lack of sites to receive dredged materials also poses a dilemma.

Funding for waterway improvements has not been able to keep pace with needs in past years. Texans should be made aware that should the waterway become inoperable, it would have deleterious effects on the future economic prosperity of the entire State of Texas, not just the coastal region.

Water transportation will continue to play a vital role in the State's future economic well-being. How that role is defined and expanded is a matter of concern to all Texans. It is hoped that this report will enlighten those who have previously underestimated its significance.

II. INTRODUCTION

Extending some 426 miles along the Texas coastline, the Gulf Intracoastal Waterway system plays a dominant role in the economic vitality of the State. In addition to linking Texas deepwater ports, it also connects with other waterway networks throughout the South and middle America. The GIWW provides the State's oil and chemical industries direct access to midwestern markets[1]. Almost three quarters of Texas' goods are shipped by water[2]. Practically every coastal industry benefits from its existence. It has been estimated that approximately 20 percent of the Texas state gross product is linked to water transportation[3].

Commercial and industrial firms ship and receive large volumes of bulk commodities at relatively low costs, thus stimulating economic development and expansion at sites having access to inland waterways. These reasons help explain why the Texas Gulf Coast has the greatest concentration of chemical plants in the United States. These plants produce 40% of all U.S. petrochemicals, 80% of all synthetic rubber, and 10% of all sulfuric acid. Furthermore, the coastal region contains 43% of all Texas refineries and 82% of all employees engaged in this type of work[4].

Traffic on the canal had been steadily increasing until Texas experienced a recession in 1981. Since that time, economic conditions have improved, resulting in greater use of the waterway. In 1986, the GIWW registered 72.9 million tons of commerce - a healthy eight percent increase from 1985[5].

Texans have long known that our inland waterways support activities other than those directly linked to manufacturing, oil production, and commerce. The waterway provides access to sport and commercial fishing, and recreational activities almost year round. Expenditures made by these users of the waterways also have a direct economic impact on Texas' economy. Today, Texans take the inland waterway system for granted; as a brief history of the GIWW will illustrate, this was not always the case.

The total value of commodities shipped and their economic significance to the state will be illustrated in this report. Also to be analyzed is the impact the inland waterway system has on specific industries located on the Texas coast. In particular, attention will be focused on the chemical and allied products, petroleum refining and coal production, oil and gas extraction, non-metallic mineral production, and water transportation industries. Finally, the problem of shoreline erosion and how it impinges upon the future productivity of the GIWW, will be discussed.

III. HISTORY OF THE GIWW

In 1873, the Rivers and Harbors Act provided an appropriation for a survey of the Texas coastline, which was completed August 1, 1874[6]. On January 10, 1901 an event occurred which necessarily hastened the development of an inland waterway system in Texas. The discovery of oil just south of Beaumont at the famous Spindletop oilfield ushered in the age of petroleum. As interest in the canal renewed, a second survey of the Texas coast showed that the potential commerce along the proposed waterway "included petroleum, coal, rice, sugar and molasses, lumber, cotton, and general merchandise"[7].

Construction on the Intracoastal Waterway first began in 1905 when canals were dredged 5 feet deep and 40 feet wide along some areas of the Gulf Coast. These canals, all dredged by 1909, extended from Corpus Christi to Aransas Pass, from Aransas Pass to Pass Cavallo, and from the Brazos River to West Galveston Bay. The Rivers and Harbors Act ordered surveys for a "continuous waterway" from Boston to the Rio Grande[8]. As late as 1924, no complete project existed for the proposed waterway as a whole.

On March 3, 1925 Congress appropriated nine million dollars to extend the intracoastal waterway as far as Galveston. Direct access between New Orleans and Texas was achieved in 1934 when the segment between the Sabine River and Galveston Bay was completed[9].

World Wars I and II had pointed out the importance of water transportation to the nation's defense. Access to inland waterway systems allowed the sheltered passage of troops and supplies along the coast. A project for the 9-foot channel terminating at Corpus Christi was pushed forward to its completion in 1942. On June 18, 1949 a channel was completed between Corpus Christi and Brownsville, thus forming a continuous waterway from Apalachee Bay in Florida to the Mexican border[10]. Forty years ago the waterway was dredged 12 feet deep by 125 feet wide.

By 1961, almost 90 tributaries had been incorporated into the GIWW system, more than one half of these are in Texas and Louisiana. The addition of each tributary channel enhances the value of the main channel. Channels provide access to the Gulf making it easier to service offshore rigs and greatly benefits shrimping and fishing fleets and waterborne trade in general[11].

Maintenance and development of the GIWW is a necessity if future benefits are to be realized. Once segments of the waterway are developed, they are maintained by periodic dredging to remove accumulations of sediment and siltation. Sites are constantly needed for disposal of dredged materials[12].

IV. COMMODITY FLOW STATISTICS

Using data obtained from the U.S. Corps of Engineers, the volume and value of specific commodities carried by the intracoastal waterway were determined. Table 1 lists the 79 commodities, along with their respective tonnages and value, which were shipped along the three portions of the Texas GIWW in 1986[13]. Sixty-five percent of the cargo was carried on the segment between the Sabine River and Galveston, 33% was moved from Galveston to Corpus, and the remaining 2% travelled along the portion from Corpus Christi to the Mexican Border. The total value of these goods was estimated at just over $21 billion, while the average value per ton was approximately $290. These price estimates are conservative and were developed by utilizing data from a study performed by Data Resources Inc. for the Army Corps of Engineers.

As can be seen in Table 2, chemicals and allied products, petroleum and coal products, and crude petroleum comprise 90% of all goods moved on the GIWW. In 1956 and 1971, chemical tonnage as a percentage of total tons shipped was 4.0 and 17.4, respectively[14]. Current data show that the amount has increased to 28%, while the value of these chemicals was over 55% of the total value of all goods shipped. The low-cost transportation afforded by the waterway is the primary reason for the increase in chemical shipments.

TABLE 1

VALUE OF GOODS SHIPPED ON GIWW IN 1986

SIC#	COMMODITY DESCRIPTION	SHORT TONS	DOLLAR VALUE
101	RAW COTTON	8,230	9,500,000
103	CORN	1,656	160,000
104	OATS	89,413	16,500,000
105	RICE	102,301	30,000,000
106	SORGHUM GRAINS	45,164	4,500,000
107	WHEAT	38,333	5,500,000
111	SOYBEANS	31,951	7,000,000
119	OILSEEDS	5,553	2,000,000
912	SHELLFISH, EXC PREPARED	906	4,000,000
931	MARINE SHELLS, UNMFG	976,026	53,500,000
1011	IRON ORE AND CONCENTRATES	4,410	190,000
1051	ALUMINUM ORES, CONC	43,461	11,000,000
1061	MANGANESE ORES, CONC	30,870	6,500,000
1091	NONFERROUS ORES, CONC	10,638	41,500,000
1121	COAL AND LIGNITE	82,674	3,000,000
1311	CRUDE PETROLEUM	11,922,344	1,554,000,000
1411	LIMESTONE	32,957	500,000
1442	SAND, GRAVEL, CRSHD ROCK	1,877,521	49,500,000
1451	CLAY	46,434	6,000,000
1492	SULPHUR, DRY	3,011	500,000
1493	SULPHUR, LIQUID	372,767	46,500,000
1499	NONMETALLIC MINERALS, NEC	209,850	54,500,000
2014	TALLOW, ANIMAL FATS, OILS	13,220	21,500,000
2039	PREP FRUIT & VEG JUICE	4,251	5,000,000
2041	WHEAT FLOUR & SEMOLINA	60,105	15,000,000
2042	ANIMAL FEEDS	40,194	7,500,000
2049	GRAIN MILL PRODUCTS, NEC	147,723	44,500,000
2061	SUGAR	56,082	21,500,000
2062	MOLASSES	45,329	3,500,000
2091	VEGETABLE OILS, MARGARINE	1,576	1,000,000
2095	ICE	2,632	150,000
2099	MISC FOOD PRODUCTS	27,037	30,000,000
2212	TEXTILE FIBERS, NEC	12,700	33,000,000
2431	VENEER, PLYWOOD, WKD WOOD	18,898	9,500,000
2621	STANDARD NEWSPRINT PAPER	24,268	13,500,000

TABLE 1 (Cont.)

VALUE OF GOODS SHIPPED ON GIWW IN 1986

SIC#	COMMODITY DESCRIPTION	SHORT TONS	DOLLAR VALUE
2631	PAPER AND PAPERBOARD	2,162	2,000,000
2810	SODIUM HYDROXIDE	1,314,669	333,000,000
2811	CRUDE TAR, OIL, GAS	840,872	624,000,000
2813	ALCOHOLS	2,407,083	1,321,500,000
2817	BENZENE AND TOLUENE	2,815,312	1,646,500,000
2818	SULPHURIC ACID	693,793	240,000,000
2819	BASIC CHEMICALS	11,806,036	7,461,500,000
2821	PLASTIC MATERIALS	1,206	4,500,000
2871	NITROGENEOUS CHEM FERT	658,296	84,500,000
2872	POTASSIC CHEM FERT	24,510	2,500,000
2873	PHOSPHATIC CHEM FERT	75,520	4,000,000
2879	FERTILIZER & MAT, NEC	213,892	37,500,000
2891	MISC CHEMICAL PROD	123,597	78,000,000
2911	GASOLINE	8,751,032	1,988,500,000
2912	JET FUEL	1,894,699	379,000,000
2913	KEROSENE	314,594	63,000,000
2914	DISTILLATE FUEL OIL	4,083,042	725,500,000
2915	RESIDUAL FUEL OIL	9,435,606	980,000,000
2916	LUBRICATING OILS & GREASE	1,672,593	365,000,000
2917	NAPTHA, PETRO SOLVENTS	3,596,443	817,000,000
2918	ASPHAULT, TAR & PITCHES	481,494	117,000,000
2920	COKE, PETROLEUM COKE	627,530	19,000,000
2921	LIQUEFIED GASES	594,743	106,000,000
2991	PETROLEUM & COAL PRODUCTS	746,522	169,500,000
3241	BUILDING CEMENT	266,566	42,000,000
3271	LIME	10,267	2,500,000
3311	PIG IRON	7,891	500,000
3312	SLAG	77,341	5,000,000
3314	IRON & STEEL PRIMARY FORMS	120,442	61,000,000
3315	IRON, STEEL SHAPES	366,485	186,000,000
3316	IRON & STEEL SHAPES	232,609	309,500,000
3317	IRON & STEEL PIPE & TUBE	239,733	400,000,000
3318	FERROALLOYS	50,120	52,000,000
3319	IRON & STEEL PRODUCTS	26,094	32,500,000
3411	FABRICATED METAL PRODUCTS	6,409	32,500,000

TABLE 1 (Cont.)

VALUE OF GOODS SHIPPED ON GIWW IN 1986

SIC#	COMMODITY DESCRIPTION	SHORT TONS	DOLLAR VALUE
3511	MACHINERY, EXC ELECTRICAL	27,805	91,000,000
3611	ELEC MACHINERY & EQUIPMT	153	1,500,000
3711	MOTOR VEHICLES & PARTS	279	1,500,000
3911	MISC MANUFACTURED PRODUCTS	43,524	58,500,000
4011	IRON AND STEEL SCRAP	952,476	93,500,000
4029	WASTE AND SCRAP, NEC	877,476	98,000,000
4111	WATER	57,125	27,000,000
4112	COMMODITIES, NEC	45,055	5,000,000
4118	WATERWAY IMPRVMT MATERIAL	15,599	850,000
	OTHER MISCELLANEOUS	230	500,000
	TOTAL TONS AND TOTAL DOLLAR VALUE	72,989,410	21,183,000,000

Source: United States Department of the Army, Corps of Engineers, Waterborne Commerce of the United States, Pt. 2, New Orleans, 1988; Data Resources, Inc., The 1982 Estimated Value of Waterbourne Commodities,Washington D.C., 1984; and Economic Report of the President, U.S. Government Printing Office, 1988.

* TOTAL DOLLAR VALUE MAY NOT ADD DUE TO ROUNDING

According to an article published by the State Comptroller's Office, the Texas Coast will reap the benefits of over 150 petrochemical plant expansions totaling $5 billion. Not included in this figure is a recent announcement by Formosa Plastics to construct a $1.3 billion plant at Port Lavaca. This plant will be producing ethylene, the primary chemical component in the production of polyester, synthetic rubber, and many plastics[15].

TABLE 2

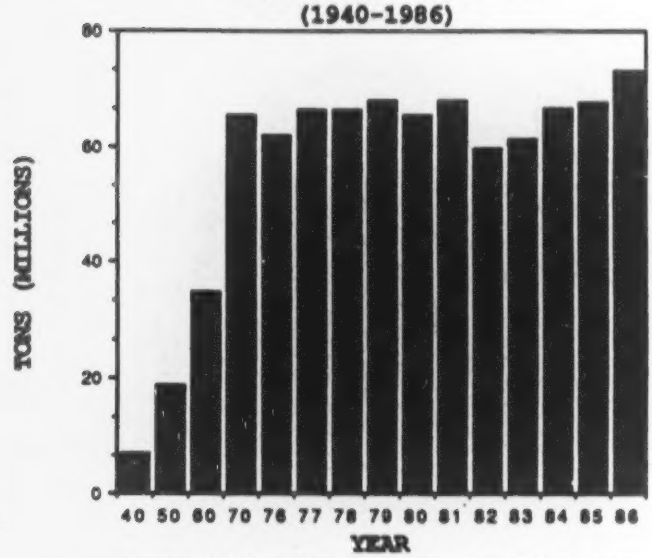
1986 TEXAS GIWW COMMODITY FLOW AS
PERCENT OF TOTAL TRAFFIC AND VALUE

COMMODITY CLASS	SHORT TONS	%TOTAL TONS	%TOTAL VALUE
01 FARM PRODUCTS	322,601	0.44%	0.35%
09 MARINE PRODUCTS	976,968	1.34	.27
13 CRUDE PETROLEUM	11,922,344	16.33	7.34
14 NONMETALLIC MINERALS	2,542,540	3.48	.74
28 CHEMICALS AND PRODUCTS	20,974,786	28.74	55.88
29 PETROLEUM AND COAL PRODS	32,198,298	44.11	27.05
40 WASTE AND SCRAP MATERIAL	1,829,952	2.51	.90
OTHER	2,221,921	3.04	7.46
TOTAL	72,989,410	100.0	100.0

Source: United States Department of the Army, Corps of Engineers. Waterborne Commerce of the United States, Calendar Year 1986, Pt. 2. New Orleans, 1988.

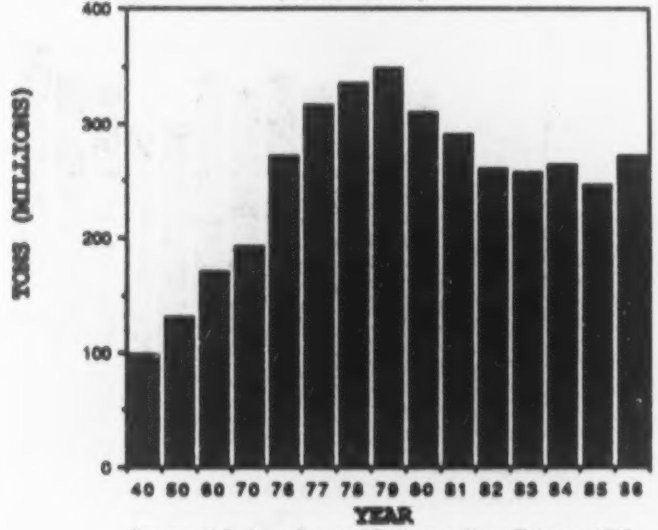
The demand for ethylene and other petrochemicals has been steadily increasing. As a result, the prices of these goods have risen dramatically. Since the petroleum and petrochemical industries are counter cyclical, petrochemical production helps to

FIGURE 1
TONNAGE HANDLED ON GIWW
(1940-1986)



Source: U.S. Army Corps of Engineers, News Release, 1988, and Texas Almanac, A.H. Belo Corp., 1988.

FIGURE 2
TOTAL TONNAGE HANDLED AT TEXAS PORTS
(1940-1986)



Source: U.S. Army Corps of Engineers, News Release, 1988, and Texas Almanac, A.H. Belo Corp., 1988.

revive the Texas economy when oil and gas prices are low[16]. In 1987, more than $2 billion in wages and salaries were generated in Texas by the petrochemical industry.

Industry analysts are predicting that high demand and high operating plant rates for base petrochemicals and polymers will continue through 1989. This will result in continuing high prices, good profitability, and the possibility of spot shortages of certain chemicals. Plant operation rates, currently around 90%, will continue to rise until supply catches up with demand[17].

The spectacular growth of firms and businesses, and waterborne commerce in general, experienced in the Texas coastal region reflects the desirability of locating near those sites having access to inland waterways. Figure 1 reveals the relative increase of commerce on the GIWW over a 46-year time span. From 1940 to 1986 volume has grown from just over seven millions tons to almost 73 million. This is an astounding increase, considering that as late as 1923 the capacity of the combined Texas and Louisiana intracoastal waterways was estimated to be between five and seven million tons annually[18]. Although the rate of increase of tonnage handled has slowed in the last decade, the total volume has remained in the 65 to 70 million ton range, signifying the State's continuing heavy reliance on water transportation.

Total tonnage handled at Texas deep and shallow draft ports, as can be seen in Figure 2, reached an all-time high in 1979, and until 1984 had been gradually decreasing. A general economic slowdown, and depressed oil prices, have been responsible for much of this recent shipping trend. However, overall commerce carried on all navigation channels in Texas increased by 10% in 1986, indicating partial economic recovery ahead for the state. Data from the U.S. Corps of Engineers show over 270 million tons of commodities handled by all Texas ports in that year. Figure 2 depicts the combined growth for all ports from 1940 to 1986, which has been responsible for placing four Texas ports (Houston, Corpus Christi, Texas City, and Beaumont) into the top 20 nationally[19].

V. ECONOMIC IMPACT ANALYSIS

A. INTRODUCTION

Both direct and indirect economic impacts are produced by the GIWW. One way to gain a better understanding of these impacts is to explore the coastal region's interdependency with the rest of the State. A particular region producing a wide range of outputs, such as that of the Texas coast, depends on the economic contributions from other region's resources to help support its own producing activities. Economic multipliers will be used throughout this section of the report to more fully develop the reader's grasp of these economic interdependencies.

Revenues and expenditures which can be directly attributed to inland waterway traffic are summarized in Table 16 at the end of this section. Additionally, economic activity of Texas coastal manufacturing, mining, and sport and commercial fishing industries is partially related to the existence of the GIWW. The data from these industries are shown in Tables 3, 4 and Tables 12 through 15. Also shown in this section are the data from an economic study describing the job and revenue impacts resulting from activity at the Port of Houston.

B. THE MINING AND MANUFACTURING INDUSTRIES

One component of the economic impact of the Texas intracoastal waterway is an estimate of the economic benefits accruing to the State from those industries most reliant on water transportation. The coastal manufacturing and mining industry data presented in Tables 3 and 4 list employees, payrolls, value added, and capital expenditures for some of the more economically significant industries located in the region[20]. This set of data will exemplify the increased importance of waterway usage.

Data from each of the nineteen counties in the Texas coastal area were collected and summarized. Payroll values and employment data for 1986 were obtained from a 1988 Census of the Bureau publication. The value added and capital expenditure amounts for the chemicals and allied products and petroleum refining industries are for 1982 and were adjusted to base year 1986 using economic indices published in the 1988 edition of the Economic Report of the President. The Census of Manufacturers, published by the U.S. Department of Commerce, shows value added and capital expenditure data for all manufacturing industries. This information was not available for the oil and gas extraction and non-metallic minerals industries, since these firms are primarily engaged in mining activities.

Input-output multipliers were employed to determine the final impact these transportation-dependent industries had on the economy. Studies measuring the interdependence between industries describe how various sectors of the economy are linked together[21]. Economic multipliers describe the degree to which the required

TABLE 3

TEXAS COASTAL COUNTY MANUFACTURING INDUSTRY DATA 1986

INDUSTRY SECTOR	NUMBER OF ESTABLISHMENTS	NUMBER OF EMPLOYEES (Thousands)	PAYROLL ($ Millions)	MULTIPLIER	TOTAL PAYROLL VALUE ($ Millions)
Chemicals an Allied Products	348	49.5	1,611.0	1.9	3,109.2
Petroleum and Coal Products	100	22.0	800.4	1.9	1,544.8
	------	------	---------		---------
TOTAL	448	71.5	2,411.4		4,654.0

Source: U.S. Dept. of Commerce, Census of Manufacturers, Washington D.C., 1985; Bureau of the Census, County Business Patterns, Washington D.C., 1988; Christian Phillips, Economic Impact of the Gulf Intracoastal Waterway in Texas, Texas A&M University, 1974; and the Economic Report of the President, U.S. Government Printing Office, 1988.

TABLE 3 (Cont.)

TEXAS COASTAL COUNTY MANUFACTURING INDUSTRY DATA
1986

INDUSTRY SECTOR	VALUE ADDED ($ Millions)	MULTIPLIER	TOTAL VALUE ADDED ($ Millions)	NEW CAPITAL EXPENDITURES ($ Millions)	MULTIPLIER	TOTAL CAPITAL EXPENDITURE VALUE ($ Millions)	TOTAL ECONOMIC VALUE ($ Millions)
Chemicals and Allied Products	8,458.8	1.69	14,295.4	1,311.3	2.08	2,727.5	20,132.1
Petroleum and Coal Products	5,245.4	1.77	9,284.4	1,138.5	2.08	2,368.1	13,197.3
TOTAL	13,704.2		23,579.8	2,449.8		5,095.6	33,329.4

Source: U.S. Dept. of Commerce, Census of Manufacturers, Washington D.C., 1985; Bureau of the Census, County Business Patterns, Washington D.C., 1988; Christian Phillips, Economic Impact of the Gulf Intracoastal Waterway in Texas, Texas A&M University, 1974; and the Economic Report of the President, U.S. Government Printing Office, 1988.

TABLE 4

TEXAS COASTAL COUNTY MINING INDUSTRY DATA
1986

INDUSTRY SECTOR	NUMBER OF ESTABLISHMENTS	NUMBER OF EMPLOYEES (Thousands)	PAYROLL ($ Millions)	MULTIPLIER	TOTAL PAYROLL VALUE ($ Millions)
Oil and Gas Extraction	1,787	54.7	1,808.6	1.9	3,490.6
Non-Metallic Minerals	44	0.6	11.3	1.9	21.8
TOTAL	1,831	55.3	1,819.9		3,512.4

Source: U.S. Dept. of Commerce, Census of Manufacturers, Washington D.C., 1985; Bureau of the Census, County Business Patterns, Washington D.C., 1988; Christian Phillips, Economic Impact of the Gulf Intracoastal Waterway in Texas, Texas A&M University, 1974; and the Economic Report of the President, U.S. Government Printing Office, 1988.

inputs of a certain industry are related to its production outputs. Region eight multipliers were selected as the representative coefficient for the coastal region because (1) most goods transported on the waterway either begin, end or pass through this particular region, and (2) the input-output model for this region is most comprehensive in its commodity classifications[22].

Payroll multipliers for the four industries are identical. Since the chemical and petroleum refining industries require input resources from various sectors of the economy, their value-added multipliers will necessarily differ. However, capital expenditures in chemical production and petroleum refining were assumed to represent reinvestments into "industrial processing equipment", which lists a multiplier coefficient of 2.08[23].

Comparing the results of Table 3 and 4 with a Texas A&M study performed in 1974 reveals a 93% growth, in real terms, in the four combined industries' payrolls. The total payroll value was in excess of $8.1 billion. New capital expenditures have doubled since 1970; also in real terms. The total value added and new capital expenditure impacts were $23.6 billion and $5.1 billion, respectively. Summing the payroll, value added, and capital expenditure value impacts brings the total economic value of these four industries to over $36.8 billion.

In addition to the economic impacts previously discussed, these industries paid significant amounts of taxes in 1986. Table 5 shows how these tax revenues were broken down at the state, county, city and school district levels. State sales taxes paid were in excess of $165 million. County, city, and school district

TABLE 5

TAX REVENUE GENERATED BY TEXAS COASTAL MINING AND MANUFACTURING INDUSTRIES 1986

	CHEMICALS & ALLIED PRODUCTS ($ MILLIONS)	PETROLEUM REFINING ($ MILLIONS)	OIL & GAS EXTRACTION ($ MILLIONS)	NON-METALLIC MINERALS ($ MILLIONS)	TAX CATEGORY TOTALS ($ MILLIONS)
STATE SALES TAX	26.5	90.1	48.5	0.2	165.3
COUNTY PROPERTY TAX	9.1	13.0	18.9	0.1	41.1
CITY PROPERTY TAX	19.3	27.5	30.5	0.2	77.5
SCHOOL DISTRICT PROPERTY TAX	25.4	36.2	60.2	0.2	122.0
INDUSTRY TOTALS	80.3	166.8	158.1	0.7	405.9

Source: State Property Tax Board, Annual Report for Tax Year 1986, Austin, 1987; and Texas State Comptroller's Office, Economic Analysis Center, historical sales tax data, Austin, 1988.

tax jurisdictions collected $41.1, $77.5, and $122 million, respectively.

Determining state sales tax revenues was a relatively straight forward process. Historical sales tax data provided by the Texas State Comptroller's Office showed total sales and the total amount of sales subject to taxation for each industry in each coastal county in 1986. Multiplying each industry's aggregate amount of sales subject to taxation by an average tax rate of 7% resulted in the state sales tax revenue data shown in Table 5.

County, city and school district property tax levies are published annually by the State Property Tax Board. These levies are broken down at each level into 12 property categories. Only 3 of these categories (Category F. Real Property: Commercial and Industrial, Category G. Real Property: Oil, Gas, & Other Minerals, and Category L. Tangible Personal Property: Business) were included in this study. The total value of these three property categories was divided by the total value of all property categories. Next, this percentage was multiplied by the actual tax levy. Since property tax levies are not broken down by industry it became necessary to estimate these allocations.

This was accomplished by dividing each industry's aggregate total sales by aggregate total sales for all industry classifications in the coastal counties. Next, these ratios were multiplied by the tax levies assessed against each property category at the county, city, and school district levels. Category G did not undergo this final calculation, since 100% of its tax levy was attributed to the oil and gas extraction industry. Total taxes paid by these industries in 1986, at all levels of government, was in excess of $405 million.

C. PORT REVENUE AND JOB IMPACTS

A report prepared in 1987 for the Port of Houston Authority measured the economic impact of the port's activities on the local area and the State[24]. The study included all private and public facilities located along the Houston Ship Channel from Bayport to the Houston Turning basin. Information gleaned from this study includes: (1) the total amount of jobs in the State of Texas in some way related to shipments and receipts of cargo through the port, (2) total port revenue generated, (3) personal income received by individuals directly employed as a result of port activity, (4) the amount of tertiary income generated in Texas, and (5) tax revenue generated by the port. Appendix B of this report describes the methodology used in this Houston port study.

About 110,000 jobs in the State of Texas were either directly or indirectly related to goods received and shipped by the Port of Houston[25]. These 110,000 jobs related to port activity consist of three levels of job impacts.

Over twenty-eight thousand Texas residents are employed directly as a result of shipping activity in the Houston area and these jobs would disappear if Port activity were severely disrupted[26].

As a result of the purchases of goods and services of the 28,000 Texas residents directly employed by Port of Houston activity, an additional 19,000 jobs in Texas were created. If the

Port were to shut down, these jobs would also cease to exist.

An additional 63,000 jobs are related to Port activity in a less direct way than the preceding job impacts. The majority of these jobs are connected with the local chemical and petroleum industries highly dependent on low-cost water transportation. These jobs are not directly dependent on Port activities, but if the Port suddenly became inoperable, firms would need to locate alternative shipping routes and raw material sourcing. Should their transportation costs and capital costs increase substantially, plant relocation would become a necessity. Employment dislocations would necessarily result from such an action.

In 1986, commodity flow at the Port of Houston generated $2.9 billion in total revenue, including $710 million in personal income that was received by individuals directly employed as a result of this activity. An additional $852 million of income was generated in Texas due to respending.

How this total revenue was distributed to different industries is shown in Table 6. The surface transportation sector received the largest revenue impact, followed by revenue earned by maritime service industries. High revenue impacts of the banking and insurance industries demonstrate their importance to the coastal area. Revenue impacts by commodity are revealed in Table 7. Petroleum accounts for 45% of the total revenue generated.

Activity at the Port of Houston created over $115 million of state and local tax revenue in 1986. These receipts were from all sources of state and local taxes, including: (1) state sales tax,

TABLE 6

TOTAL REVENUE GENERATED BY ACTIVITY AT PORT OF HOUSTON IN 1986

SECTOR	PORT OF HOUSTON REVENUE ($ Millions)	PERCENT OF TOTAL REVENUE
Surface Transportation	1400.0	47.0
Maritime Service	730.0	24.0
Federal Government	270.0	9.0
Banking and Insurance	550.0	19.0
Port of Houston Authority	33.0	1.0
	------	-----
TOTAL	2983.0	100.0

Source: Martin O'Connell & Associates, The Economic Impact of the Port of Houston - 1986, Bethesda, 1987.

TABLE 7

REVENUE IMPACTS BY COMMODITY GENERATED BY ACTIVITY AT PORT OF HOUSTON IN 1986

COMMODITY	PORT OF HOUSTON TOTAL REVENUE IMPACT ($ Millions)	REVENUE IMPACT PER TON
Petroleum	1224.5	25.6
Grain	66.6	25.3
Breakbulk	140.2	133.5
Other Dry Bulk	304.3	18.4
Containerized Cargo	328.0	96.4
Steel	100.0	56.1
Liquid Bulk	425.7	15.3
Automobiles	62.8	151.3
Rice	8.7	86.5
Bagged Grain	42.6	94.2
	------	-----
TOTAL	2703.4	N/A

Source: Martin O'Connell & Associates, The Economic Impact of the Port of Houston - 1986, Bethesda, 1987.

(2) motor fuels tax, (3) local property tax, (4) motor vehicle registration tax, (5) franchise tax, (6) natural gas tax, and (7) personal property tax[27].

The total percentage of the Port of Houston commodity flow due to inland waterway movement can easily be determined by glancing at Table 11. Dividing Houston's internal traffic amount by the total port tonnage shows that 31% of its commodities move via the GIWW. However, it would not be accurate to apply this percentage to the data in the Port of Houston study to determine revenue attributable to the GIWW.

This would not take into account the fact that different types of cargo are shipped internally and coastwise. For example, Table 7 shows that the revenue impact per ton due to the shipment of containerized cargo is $96.40 per ton. However, ocean going vessels are much more likely to containerize their cargo than are barges moving internally. The majority of internal traffic is in the form of dry and liquid bulk, which has relatively low revenue impacts of $18.40 and $15.30 per ton, respectively.

To determine the revenue of all Texas deep and shallow draft ports attributable to the GIWW, the commodities of each port's shipments and receipts for 1986 were analyzed and placed into eight categories. These categories and their respective revenue impacts per ton, shown in Table 7, were obtained from the Port of Houston economic study. Waterborne Commerce Statistics, published by the U.S. Army Corps of Engineers, revealed the commodity composition of each port's internal traffic movement. After the total tonnage of each commodity type was determined, it was

TABLE 8
DEEP DRAFT PORT REVENUE BY COMMODITY TYPE FOR COMMODITIES MOVED BY BARGES IN 1986
($ THOUSANDS)

	Petroleum	Grain	Breakbulk	Other Dry Bulk	Steel	Other Liquid Bulk	Autos	Rice	Port Totals
HOUSTON	41,180	6,930	4,850	59,250	32,040	395,450	100	0	539,800
SABINE PASS	6,010	0	530	170	130	580	0	0	7,420
GALVESTON	0	650	380	2,090	580	7,630	0	380	11,700
TEXAS CITY	49,080	510	2	2,980	180	109,630	0	0	162,382
PORT ARTHUR	4,500	190	2,490	9,500	950	61,920	0	1,890	81,440
FREEPORT	25,740	0	2,740	6,140	0	37,090	0	0	71,710
ORANGE	340	300	110	4,320	690	5,800	0	0	11,560
BEAUMONT	117,160	830	8,290	22,350	8,430	105,430	0	40	262,530
CORPUS CHRISTI	31,465	1,817	1,376	20,274	1,878	142,850	0	0	199,260
BROWNSVILLE	0	115	0	1,274	2,293	9,431	0	0	13,113
PORT ISABEL	4,747	0	0	1,948	0	0	0	0	6,695
TOTALS	280,222	11,142	20,568	130,296	47,151	875,611	100	2,320	1,367,410

Source: Martin O'Connell & Associates, The Economic Impact of the Port of Houston - 1986, Bethesda, 1987; Christian Phillips, Economic Impact of the Gulf Intracoastal Waterway on the State of Texas, Texas A&M University, 1974; and United States Dept. of the Army, Corps of Engineers, Waterborne Commerce of the United States, Pt. 2, New Orleans, 1986.

TABLE 9
SHALLOW DRAFT PORT REVENUE BY COMMODITY TYPE FOR
COMMODITIES MOVED BY BARGES IN 1986
($ THOUSANDS)

	Petroleum	Breakbulk	Other Dry Bulk	Steel	Other Liquid Bulk	Port Totals
TRINITY RIVER TO LIBERTY	0	0	805	0	0	805
CEDAR BAYOU	0	0	3,011	1,632	1,264	5,907
CHOCOLATE BAYOU	5,227	0	3,800	0	37,707	46,734
ANAHUAC	0	0	892	0	0	892
DOUBLE BAYOU	0	0	259	0	0	259
ROCKPORT	0	0	267	0	0	267
ARANSAS PASS	0	0	15	0	0	15
PORT MANSFIELD	0	217	8	1	27	253
LONG MOTT	0	0	25,847	0	25,543	51,390
TOTALS	5,227	217	34,904	1,633	64,541	106,522

Source: Martin O'Connell & Associates, The Economic Impact of the Port of Houston - 1986, Bethesda, 1987; Christian Phillips, Economic Impact of the Gulf Intracoastal Waterway on the State of Texas, Texas A&M University, 1974; and United States Dept. of the Army, Corps of Engineers, Waterborne Commerce of the United States, Pt. 2, New Orleans, 1986.

multiplied by its respective revenue impact per ton. Tables 8 and 9 show how much of each port's revenue generated by internal traffic is due to each commodity type. Total deep draft port revenue, shown in Table 8, was over $1.36 billion in 1986, while shallow draft port revenue, seen in Table 9, contributed $106 million. It was assumed, for the purposes of this study, that the revenue impacts per ton developed for the Port of Houston are representative of those of other ports in the Texas coastal area.

D. THE TRANSPORTATION INDUSTRIES

Transportation cost is a component of the sales prices of products. The relative cost of transporting a product is dependent on the physical characteristics of an item as well as its value. Smaller, higher-priced items' transportation costs comprise a lower percentage of total cost as compared to low-priced, bulk goods. It is estimated that an average twenty cents out of each U.S. consumer's dollar spent on a consumer type good is applied to the cost of transportation[28].

Prices are also affected by transportation in less direct ways. Long-distance transportation allows local markets to be less vulnerable to changes in supply and demand. For instance, if prices rise locally due to material scarcity, supplies could be shipped in via long-haul transportation. Competition is also enhanced by efficient transportation networks. Firms able to set low prices due to reduced shipping costs are in a position to dominate the market. Others must either match these lower prices or lose market share[29].

Moving commodities by barge reduces transportation costs substantially. Using other modes of transportation, such as railroads and trucks, may result in a quicker delivery time, but generally at higher costs. Table 20 in Appendix D documents the shipping cost ratios of chemicals and iron and steel products moved by rail and truck as compared to barge transportation[30]. The data in this table show that the cost of moving chemicals by rail or truck is roughly six to seven times greater than that of moving them by barge. Water transportation rates for steel are from one-half to one-third of rail and truck transportation rates. These significant cost savings are responsible for the heavy concentration of chemical plants and manufacturing establishments in the coastal region.

It has been estimated that it would take 15 railroad cars or more than 60 trucks to fill a single barge. This huge carrying capacity makes this mode of transportation very energy efficient in comparison to rail and truck transport. One ton of cargo can be moved over 500 miles on one gallon of fuel by inland barge; while those same goods can be transported only 200 miles by the barge industry's closest competitor, the railroads[31].

Improvements in barge technology and greater carrying capacity have made this mode of transportation even more attractive to industry. Although limited channel width and depth at certain points along the GIWW place restrictions on increasing barge sizes.

Texas' demand for water transportation in 1985 was served by approximately 490 water transportation and service establishments. The information in Table 10 highlights the importance of this industry to Texas. These data, collected from a 1987 Bureau of the Census publication, show a total payroll value of over $870 million and total revenue value of over $4.5 billion. These data are expressed in 1986 dollars, the base year used in this report.

Data for each coastal county in Texas were collected and totaled. Information regarding the revenue earned by the water transportation industries was not available. However, 1986 revenues were estimated by assuming that revenues held the same proportion to payrolls as they did in a 1974 study performed at Texas A&M. Multipliers were used to derive the final impact values, which measure the economic activity generated by these industries. It is difficult to separate these revenues into shipping, barge, or deep sea drilling operations. However, it is possible to estimate the percentage of total Texas water transportation due to barge transportation on the inland waterway system.

Table 11 demonstrates that approximately 30% of all tonnage moved through the major Texas ports in 1986 was due to internal barge traffic. All commodity movement that originates and terminates in Texas is classified as internal. Coastwise movements refer to all tonnage shipped as exports to areas outside of Texas[32]. Assuming all inland water transportation is accomplished by barge, we can use this percentage to determine that portion of the payroll and revenue value of the water transportation industries attributable to the Texas inland waterway system. Thus, it can be seen in Table 16 that aggregate barge operations (water transportation and water transportation services) are responsible for generating $136 million of payrolls with a final payroll impact of $263 million. Likewise, aggregrate revenues due to barge operations were $473 million with a final effect of $1.37 billion.

Additionally, waterway operators must pay a federal fuel tax on the gasoline they use. These revenues are placed in a U.S. Treasury trust fund and are used, in partnership with the federal government, to provide one half the cost of constructing and replacing navigational facilities on the inland waterway system. Dividing the total GIWW ton-miles by the total ton-miles subject to the fuel tax, and then multiplying this ratio by the total fuel user tax collected, resulted in an estimated $1.1 million paid by Texas barge operators[33].

To gain a greater perspective of the economic influence of the low-cost water transportation provided by the GIWW, the activity of a real firm operating in a port city was analyzed. The company, here called ATEX, converts feed stock into three separate petroleum products. This particular company produces 100,000 tons of petroleum coke, 30,000 tons of gas-oil products, and 20,000 tons of naptha annually[34].

ATEX employs approximately 130 people earning an average annual salary of $35,000. Gross revenue from the sale of its products is in excess of $410 million. Annual property taxes paid by this firm amount to $800,000.

This company ships 100% of its oil-gas and naptha products, and 50% of its petroleum coke by barge. Without the inherent cost advantages afforded by water transportation, ATEX would not be competitive with its rivals. Indeed, before the plant was

TABLE 10

ECONOMIC VALUE OF ALL WATER TRANSPORTATION IN TEXAS IN 1986

	NUMBER OF ESTABLISH-MENTS	NUMBER OF EMPLOYEES	PAYROLL ($MILLION)	MULTIPLIER	DOLLAR VALUE ($ MILLION)	REVENUES ($MILLION)	MULTIPLIER	DOLLAR VALUE ($MILLION)	TOTAL VALUE ($MILLION)
Water Transportation	200	7,144	234.9	1.93	453.4	1,069.2	2.77	2,961.7	3415.1
Water Transportation Services	282	12,738	219.3	1.93	423.2	508.3	3.18	1,616.4	2039.6
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TOTAL	482	19,882	454.2		876.6	1,577.5		4,578.1	5454.7

Source: Bureau of the Census, Texas County Business Patterns, Washington D.C., 1987; Christian Phillips, Economic Impact of the Gulf Intracoastal Waterway on the State of Texas, Texas A&M University, 1974; and the Economic Report of the President, U.S. Government Printing Office, 1988.

TABLE 11

PORT ACTIVITY ATTRIBUTABLE TO BARGE TRANSPORTATION IN 1985

PORTS	TOTAL PORT (Tons)	INTERNAL BARGE SHIPMENTS (Tons)	EXPORTS FROM TEXAS (Tons)
BEAUMONT	27,453,660	12,927,762	6,267,823
BROWNSVILLE	1,212,743	730,884	4,238
CORPUS CHRISTI	48,053,926	11,348,811	8,564,108
FREEPORT	13,370,117	3,783,592	4,226,792
GALVESTON	7,987,857	1,030,563	655,553
HOUSTON	101,659,064	31,565,514	12,473,814
ORANGE	661,570	652,831	N/A
PORT ARTHUR	18,879,546	4,802,912	2,968,997
TEXAS CITY	35,479,909	9,263,974	8,025,073
TOTAL	254,758,392	76,106,843	43,186,398

Source: United States Department of the Army, Corps of Engineers, Waterborne Commerce of the United States, Part 2, New Orleans, 1986; and Christian Phillips, Economic Impact of the Gulf Intracoastal Waterway in Texas, Texas A&M University, 1974.

constructed in 1982, one of the requirements was that the plant have access to water transportation.

Should the company lose access to the waterway system, it is not likely that it would be forced to discontinue operations. In the short run, its transportation costs will rise, having a considerable inflationary impact on the prices it charges for its products. If ATEX's competitors are less reliant on water transportation and do not experience this same profit-squeeze caused by increased transportation costs, they will be able to continue charging the same prices. This will result in reduced profits and/or lost market share for ATEX, depending on whether it decides to let its customers bear the increased costs. If the company is not able to remain economically viable in the long run, it would need to relocate, thus causing employment dislocations.

E. THE RECREATION AND COMMERCIAL FISHING INDUSTRIES

The Texas Gulf coast provides residents with a wide range of recreational activities. Visitors travel here to engage in sport fishing, pleasure boating, swimming, camping, picnicking, and sightseeing. Expenditures by these Texans have a significant impact on the economy of the coastal region as well as the rest of the state. Commercial fishing in the Gulf Coast area also provides benefits to the State in terms of employment and added revenue. Results from a recent Texas A&M report demonstrating these economic impacts are summarized here[35].

The information collected for this study represented recreational activity at six individual Texas bays and estuaries in 1986, including (1) the Sabine-Neches estuary, (2) the Trinity-San Jacinto estuary, (3) the Lavaca-Tres Palacios estuary, (4) the Guadalupe estuary, (5) the Nueces and Mission-Aransas estuary, and (6) the Laguna-Madre estuary.

Although all of the activity at these estuaries cannot be directly linked to the existence of the GIWW, the waterway does serve to provide access to these areas. In fact, a report prepared by the State Department of Highways and Public Transportation in 1980 showed that 82% of all boaters visiting coastal waters used the GIWW to some extent[36]. Furthermore, 65% of those visitors travel between coastal bays and the length of those trips was between 5 and 50 miles. Also, the waterway is a tourist attraction in its own right. Water-skiing and fishing are two favorite recreational activities which occur directly on the GIWW. Table 12 shows the direct expenditures of these Texans.

TABLE 12

Visitor Expenditures Along the Texas Gulf Coast

Category	"Fishing" Expenditures	"Nonfishing" Expenditures	Total
Transportation	$111,660,000	$78,250,000	$189,910,000
Lodging	31,970,000	26,800,000	58,770,000
Restaurant	73,690,000	72,300,000	145,990,000
Grocery	80,120,000	29,550,000	109,670,000
Rental	9,590,000	5,760,000	15,350,000
Fees	13,820,000	9,690,000	23,510,000
Fishing items	43,390,000	N/A	43,390,000
Total	$364,240,000	$222,350,000	$586,590,000

Source: Dept. of Recreation and Parks & Dept. of Agricultural Economics, Regional and Statewide Economic Impacts of Sport Fishing & Other Recreational Activities, Texas A&M University, 1987.

These direct expenditures were estimated to be $364 million for sport fishermen and $222 million for those visitors not fishing. Also shown is the distribution of this spending by different categories. Transportation costs represented the largest source of expenditures; while restaurant and grocery expenditures were also very significant.

TABLE 13

Direct and Total Economic Impacts From Sport Fishing Expenditures and Other Recreational Activity Along the Texas Gulf Coast, 1986

	Direct	Total Impacts	
	Impacts	Regional	State
Output (million $)	586.6	1,194.4	1,913.7
Employment (man-years)	24,095.0	20,940.0	33,904.0
Income (million $)	218.4	273.5	511.1
State Tax Rev (million $)	2.6	22.8	25.3
Local Tax Rev (million $)	7.4	40.7	45.0

Source: Dept. of Recreation and Parks & Dept. of Agricultural Economics, Regional and Statewide Economic Impacts of Sport Fishing & Other Recreational Activities, Texas A&M University, 1987.

Both regional and state economic impacts of these expenditures were evaluated. Presented in Table 13 are the direct and total impacts on output, employment, income, and state and local tax revenues. Output for the state was increased by $1.9 billion and almost 21,000 jobs were created regionally, which represents about

62% of the total state job impact. Household personal income in the state grew $500 million due to sport fishing and other recreational activity in the coastal region. Over $7 million was generated in local tax revenue. Regional and state tax impacts were $40 and $45 million, respectively.

The GIWW provides the commercial fishing industry with direct access to resource-rich estuarine and bay regions. Table 14 shows the direct and total impacts of these commercial fish landings.

TABLE 14

Direct and Total Economic Impacts From Inshore and Offshore Commercial Fishing Along the Texas Gulf Coast, 1986

	Landings		Total Impacts			
			Inshore		Inshore-Offshore	
	Inshore	Inshore-Offshore	Region	State	Region	State
Output (Million $)	34.5	205.3	76.0	113.5	431.1	650.6
Employment (man-years)	1942.0	8653.0	2200.0	2473.0	13108.0	14715.0
Income (Million $)	9.7	55.3	16.6	28.7	94.9	163.9
State Tax Rev. (Million $)	.168	.958	a	1.5	a	8.1
Local Tax Rev. (Million $)	.231	1.3	a	2.4	a	13.7

a. There was insufficient data to calculate the regional tax impacts

Source: Dept. of Recreation and Parks & Dept. of Agricultural Economics, Regional and Statewide Economic Impacts of Sport Fishing & Other Recreational Activities, Texas A&M University, 1987.

Migratory schools of fish use the GIWW as a route to move in, out, and between different bay systems, providing fertile fishing ground for both recreational and commercial fishermen[37]. Commercial fishing vessels also receive protected passage during periods of inclement weather. In a three year period (1984-1986) the average annual catch in the Texas Gulf Coast estuaries was reported to be over 104.1 million pounds with an ex-vessel value (value received at wholesaler's dock) of over $205 million. Shrimp accounted for 90% of the total value of these landings.

As can be seen in Table 14, over 8,500 Texans were directly employed in this industry earning personal income of $55 million. Almost $1 million was generated in state tax revenue, while $1.3 million in local tax revenue was realized. The total business generated in the state due to activity of the commercial fishing industry was estimated at $650.6 million of which over $430 million was business within the Texas Gulf Coast. The employment impacts approached 15,000, while total and local state tax revenue collected was almost $22 million.

Direct and total economic impacts from sport fishing, recreational activity, and commercial fishing are shown in Table 15. Direct employment impacts for all three activities were estimated at almost 33,000 full-time job equivalents. A total of over 48,000 Texans earning $675 million were employed by the business generated by these economic activities in the Gulf Coast region in 1986. State and local tax jurisdictions throughout Texas collected approximately $59 million.

TABLE 15

Direct and Total Economic Impacts From Sport Fishing, Other Recreational Activity, and Commercial Fishing Along the Texas Gulf Coast, 1986

	Direct Impacts	Total Impacts	
		Regional	State
Output (million $)	791.9	1,625.5	2,564.3
Employment (man-years)	32,748.0	34,048.0	48,619.0
Income (million $)	273.7	368.4	675.0
State Tax Revenues (million $)	3.6	24.3*	33.4
Local Tax Revenues	8.7	43.1*	58.7

* Includes only tax impacts from sport fishing and other recreational activity.

Source: Dept. of Recreation and Parks and Dept of Agricultural Economics, Regional and Statewide Economic Impacts of Sport Fishing and Other Recreational Activities, Texas A&M University, 1987.

F. SUMMARY

The direct economic contributions to the State of Texas attributable to the GIWW include port revenues generated by internal traffic, the payrolls and revenues of the water transportation industries, and the direct expenditures made by the Corps of Engineers on maintenance dredging activity. Tables 8,9, and 10 show these revenue amounts.

Multipliers for the Corps' expenditures and for payrolls and revenues of the water transportation industries are shown in Table 16. The economic impact of the GIWW in 1986 was $3.1 billion.

TABLE 16

TOTAL REVENUE AND EXPENDITURES DIRECTLY ATTRIBUTABLE TO THE GULF INTRACOASTAL WATERWAY IN TEXAS IN 1986

SECTOR	REVENUES OR EXPENDITURES ($ MILLIONS)	MULTIPLIER	ECONOMIC IMPACT ($ MILLIONS)
PORT REVENUE	*	*	
Total Port Cargo Value			1,473.9
DIRECT EXPENDITURES			
Intracoastal Waterway			
Maintenance Dredging	6.9	3.18	22.0
WATER TRANSPORTATION & RELATED INDUSTRIES			
Water Transportation			
Payroll	70.5	1.93	136.0
Revenues	320.8	2.77	888.5
Water Transportation Services			
Payroll	65.8	1.93	127.0
Revenue	152.5	3.18	484.9
	-------		---------
TOTAL	616.5		3,132.4

* No entries were available as a different method was used to calculate port revenue.

Source: Christian Phillips, Primary Economic Impact of the Gulf Intracoastal Waterway in Texas, Texas A&M University, 1974; and Bureau of the Census, Texas County Business Patterns, Washington D.C., 1987.

Port revenues accounted for 47% of this total; while the water transportation industries' revenues and payrolls accounted for 52%. Direct expenditures by the Corps of Engineers were one percent.

Those industries not directly related to GIWW activity were not included in Table 16. Even so, they are greatly influenced by its existence. These include the mining, petroleum refining, and chemical industries which had a combined economic impact of over $36.8 billion, after adjustment to base year 1986. Tax revenues collected from these industries were in excess of $405 million. Almost 127,000 workers were employed in these areas. The 48,000 jobs generated by sport fishing, commercial fishing, and recreational activity along the Texas coast created over $675 in personal income in 1986.

Texans should be aware that the continued economic importance of the GIWW is dependent on its ability to function smoothly. The State cannot afford to allow any section of the waterway to become inoperable. Yet, this is exactly what might occur if timely measures are not taken to rectify existing conditions which threaten the viability of the waterway.

VI. TEXAS SHORELINE EROSION: AN URGENT MATTER

Each year large amounts of land located on the Texas coastline are slowly being moved offshore by the inexorable process of erosion. Daily wave action and the occasional battering received from storms, combined with the rise and fall of ocean levels, remove at least 100 acres of beachfront and 300 acres of bayfront annually. It has been estimated by the U.S. Army Corps of

Engineers that of the 400 miles of shoreline, about 60 percent is eroding, 33 percent is stable and 7 percent is advancing[38]. Several valuable beachfront properties have already vanished and many more are in imminent danger. Also at risk is the intracoastal waterway system which provides low-cost transportation for the State's economy.

Severe erosion problems at Sargent Beach in Matagorda County are jeopardizing the intracoastal canal. The Sargent area is located approximately 20 miles southwest of Freeport and consists of an approximate 10-mile reach of waterway that is threatened by encroachment from the eroding Gulf of Mexico shoreline. Approximately 7 miles of this reach directly parallels the Gulf shoreline within a distance ranging from 650 feet at the narrowest point to a little more than 800 feet at its widest point. Erosion since 1974 has averaged 56 feet per year. Geologists and marine specialists are predicting a fusion of the two by the year 2003 if present factors remain unchanged. Local residents suggest that this may occur as soon as 1995 if erosion goes unchecked.

As detailed previously, the U.S. Army Corps of Engineers constructed the GIWW in Texas at various intervals up to 1949 and have maintained the waterway since. It remains the responsibility of the Corps of Engineers to maintain the waterway and insure that traffic flow continues uninterrupted in the future. This includes routine maintenance of the channel as well as specific remedial measures or modifications brought about by operational or physical changes such as erosional problems. The responsibility to secure disposal areas along the main channel of the GIWW lies with the

Department of Highways and Public Transportation of the State of Texas, the local sponsor for the waterway. This is accomplished through the State Legislature by funding, on a biennial basis, the Department of Highways and Public Transportation.

There are several Federal legislative methods available to modify or protect the existing system. These consist of special legislation, separate feasibility analysis through review of prior reports and studies, and through the authority for re-evaluating completed projects. Each of the above requires Congressional support to obtain funding to accomplish the analysis and ultimate implementation. In fiscal year 1989, the Corps of Engineers received funds under the Authority of Section 216 of the 1970 Flood Control Act to investigate the Texas section of the waterway. This Act authorizes the investigation of projects which were constructed by the Corps of Engineers, but may need modification because of changed economic or operational conditions since construction. The process will follow the same as all other Federal study investigations. This process consists of planning, design, and ultimately construction.

The planning part of the overall process consists of two phases. The first phase, the Reconnaissance Phase, must be completed in 12 months. This phase attempts to identify a solution to the water resource problem that is implementable and that more detailed analysis is required to develop the most cost effective solution. This more detailed analysis is accomplished in the second phase is referred to as the Feasibility Phase. A full range of alternatives are developed in the Feasibility Phase ultimately resulting in a plan for recommendation to the Congress for implementation. The Feasibility Phase requires from 2 to 3 years to accomplish. Review, further coordination at the Department level and with the Governor of the State, engineering and design studies, Congressional authorization for construction and funding for plans and specifications and construction are accomplished after the planning phase of the project are completed.

The GIWW Section study which began in November 1988 will focus on two immediate needs of the waterway. These are at Sargent and in the Aransas National Wildlife Refuge. Other needs will be identified in the Reconnaissance Phase and prioritized for future investigations.

From beginning of planning to construction completion requires about 8 to 10 years depending on the complexity of engineering and environmental considerations. Although this procedural method was compressed in 1988 from an overly cumbersome 14 to 20 years, this time frame is troubling to some who are worried that it leaves little tolerance for dealing with unpredictable events such as hurricanes which could greatly accelerate shoreline erosion in the Sargent area.

The internal erosion of the canal in the stretch running through the Aransas National Wildlife Refuge is also of great concern because of the current and impending loss of valuable wetlands. This reach will be evaluated in the two-phase planning process as described above with the Feasibility Phase being conducted independently of the Sargent reach as well as all future feasibility or reconnaissance investigations resulting from the overall Section 216 study. The Corps of Engineers has pledged that all appropriate measures will be evaluated to insure habitat of the rare and endangered whooping crane will not be adversely impacted by operation of the waterway through this reach.

Obviously, secure financing for projects aimed at maintaining or modifying the GIWW is essential. Fortunately, the main channel of the GIWW is the only waterway in Texas that was designated as an inland waterway by the Inland Waterways Revenue Act of 1978 (Public Law 95-502). This designation allows access to fuel tax revenues collected on these waterways which began in fiscal year 1981 at the rate of $.04 per gallon. These taxes constitute the Inland Waterways Trust Fund which was also established by the Inland Waterways Revenue Act of 1978 and amended by the Water Resources Development Act of 1986 (Public Law 99-662). These laws established the trust fund and stipulated escalated fuel tax rates ranging from $.10 per gallon in 1990 to $.20 per gallon in 1995 and beyond. The fund is available for construction and rehabilitation expenditures for navigation on the designated inland waterway system. Since the Sargent Beach problem falls within the inland waterway system, as described in the Waterway Act, half of the planning, design, and construction funds will be Federal with the remaining half of the funds coming from user fees collected in the Inland Waterway Trust Fund.

The Corps of Engineers will consider several alternatives to remedy Sargent's erosion problems in its feasibility studies. One method, beach replenishment, entails building steel or concrete structures that protect the area from erosion. Constructing seawalls to buffer these highly erosional areas would be very expensive. In addition, the erosion problem might simply move to another location, such as the Matagorda barrier island.

Another possible solution is beach nourishment. If the annual loss of sand in the Sargent area is 170,000 cubic yards, that same amount would be trucked in as a replacement. Advantages of this method include simplicity and lower initial cost. However, it requires a ready supply of sand, which is a rare commodity in this area. Feeding the erosion in this manner is a continual process, thus the cost of containing the erosion would continue to mount on a yearly basis.

Moving the GIWW away from the erosion threat is another alternative available to the Corps. Digging the new channel would be far less expensive than constructing a seawall, but other factors must be considered. Private property owners would need to be reimbursed for any losses incurred and substantial payments for rights-of-way would be a necessity. The purchase of rights-of-way and easements needed for relocation would require equal funding from federal appropriations and the Inland Waterway Trust Fund created through fuel taxes paid by users. Table 17 compares the various options to maintain the GIWW through the Sargent Beach area[38].

Two alternative channel relocations have been proposed and evaluated, without the benefit of field surveys. Route #1 extends 6,000 feet inland, follows the present alignment of the GIWW, and would shorten the existing route by roughly 5,000 feet. Extending up to 14,000 feet inland, route #2 would lengthen the present route

TABLE 17

COST COMPARISON OF PLANS

Protect Existing Alignment of GIWW	
Method	Cost (Dollars)
Riprap with cover stone	22,500,000
Seawall	50,000,000
Steel Sheetpile Wall	29,000,000
Pre-Stressed Concrete Sheetpile Wall	21,000,000
* Breakwaters	25,000,000
* Groinfield	17,000,000
** Beach Nourishment	4,000,000
Combination Breakwater and Nourishment	29,000,000
Combination Breakwater and Nourishment	21,000,000

Relocation GIWW Inland	
Method	Cost (Dollars)
Route #1 - 6,000 feet inland	19,000,000
Route #2 - 14,000 feet inland	23,500,000

* These methods would require beach nourishment.

** These are annual costs.

Source: Texas State Dept. of Highways and Public Transportation, The Gulf Intracoastal Waterway in Texas 1988, State Dept. of Highways and Public Transportation, Austin, 1988.

by approximately 11,000 feet. Each option would necessitate the construction of a fixed span, high-level bridge to provide access to the south side of the realigned GIWW routes.

Although route #1 is the less expensive option, a significant portion requires alignment through environmentally sensitive wetlands and would entail mitigation[40]. Additionally, implementing option #2 would maximize the amount of time which can elapse before the waterway again becomes threatened by the Gulf. Excavation costs would be substantially greater for route #2. Since these are the only expenditures which would be made with Federal funds, the cost to the State would be approximately $8.5 million for either option.

APPENDIX A

METHODOLOGY FOR DETERMINING TOTAL VALUE OF GOODS SHIPPED ON WATERWAY IN 1986 (TABLE 1)

APPENDIX A

The value of goods moved on the GIWW in 1986 was estimated by updating a 1982 study performed by Data Resources, Inc. (DRI) for the U.S. Army Corps of Engineers. DRI used data which came from the U.S. Department of Commerce statistical release SA 705, U.S. Waterborn Exports of Domestic and Foreign Merchandise. The trade data were collected using a 7-digit commodity classification scheme and were reported at the partner county, and trade route/port for U.S. dollar value of trade, and volume of trade, in pounds.

The Maritime Administration consolidated this trade data into 4-digit classification groups; then this information was sent to DRI. Average price per ton statistics were created by DRI in two stages. The total value of 1982 export shipments in U.S. dollars, and the total volume of shipments in pounds, were created by consolidating the partner country and port/trade route data into the 4-digit groups. Secondly, the volume data were converted into short tons by dividing the volume information by 2000. The average price per ton was calculated for each 4-digit group by dividing the total dollar value for the category by the volume data (in tons). Each 4-digit classification group was then assigned to the corresponding Waterborne Commerce 4-digit classification code for a specific commodity.

Data provided by the U.S. Corps of Engineers show the total number of short tons shipped along the GIWW by commodity type. The total value of these goods was determined by multiplying the tonnage amounts by DRI's average value per ton data.

Finally, it was necessary to update the 1982 DRI price estimates to reflect prices in 1986. This was accomplished by using producer price indexes for major commodity groups. Producer price indexes for 1986 were divided by 1982 price indexes. The resulting percentage was then multiplied by the per-ton commodity prices as established by DRI. Summing each commodity's tonnage multiplied by its respective value per ton resulted in the total value of all commodities shipped on the intracoastal waterway in 1986.

APPENDIX B

METHODOLOGY OF THE PORT OF HOUSTON ECONOMIC IMPACT STUDY

APPENDIX B

1. JOB IMPACTS

The Port of Houston Impact Study was based on interviews, economic impact studies and published data. Over 400 telephone interviews were conducted to collect data for estimating economic activity at the Port in 1986. In addition, econometric techniques were used to determine the relationship between revenue and employment for the local service industries. Published data from government sources such as _County Business Patterns_, _Census of Wholesale Industries_, _Census of Service Industries_, _Census of Retail Trade_, and _Census of Construction_, were used to estimate induced job impacts.

Information obtained through these means showed that 28,650 jobs were generated directly by activity at the Port of Houston. These jobs were totally dependent on port activity and would cease to exist if the Port discontinued operations. As an example, the jobs in the local petroleum industry located at a waterside terminal or refinery along the Houston Ship Channel would be classified as being totally port-dependent. How these 28,650 jobs were distributed is shown in Table 18.

The respending of income generated by these 28,650 jobs in 1986 resulted in an additional 19,131 jobs created for Texas residents. This figure was obtained by first identifying the major expenditure categories for typical consumers. Some of these categories include: food and beverages, housing, apparel, transportation, health care, and entertainment.

Next, the percentage of income a typical consumer spends on these categories was estimated from the Bureau of Labor Statistics. U.S. Bureau of the Census publications such as the Annual Survey of Manufacturers, the Census of Retail Trade, and the Census of Construction, were used to estimate the ratio of employment to thousands of sales dollars in each expenditure category.

TABLE 18

JOB DISTRIBUTION DIRECTLY RELATED TO PORT ACTIVITY

Maritime Service	32%
Shippers/Consignees	41%
Surface Transportation	20%
Banking and Insurance	5%
Port of Houston Authority	2%

Source: Martin O'Connell Associates, The Economic Impact of the Port of Houston - 1986, Bethesda, 1987.

Wholesale expenditures as a percent of total sales were next estimated for each of the expenditure categories. Data from the Census of Wholesale Trade for the State of Texas were used to estimate the ratio of Texas jobs to $1000 of sales in each supplying wholesale industry.

Income generated by the Port spent on purchases of goods and services produced in Texas was then allocated to the six expenditure categories according to the Bureau of Labor Statistics budget data. Induced Texas employment in the retail sector was determined by multiplying the port-generated income spent within

Texas on each category by the corresponding retail employment/sales dollar ratio. Estimating retail sector expenditures for wholesale purchases multiplied by the ratio of jobs per $1000 of sales in the wholesale categories resulted in the induced wholesale jobs in the State. In total, over 13,000 new jobs were created in the wholesale and retail trade sectors in 1986.

Additional jobs were also created in financial institutions, legal services, schools, and other social services necessary to support both the direct and induced jobs. The ratio of jobs with financial institutions, legal services, schools, and other social services to total Texas employment was estimated from County Business Patterns, Texas. Multiplying this ratio by the 28,650 direct jobs and the 13,264 induced retail and wholesale jobs resulted in an additional 5,867 jobs created with these types of institutions. The total number of induced jobs and those created to support them was estimated to be 19,131.

Approximately 62,973 Texans are employed with users of port facilities. These jobs are not directly dependent on Port activities, but if the port became unavailable for use, an alternative port or supply source for raw material would be found. Should these establishments suffer increased transportation costs and capital costs associated with alternative ports and raw material sourcing their costs could possibly increase enough to result in plant relocation, causing higher local unemployment rates.

Of the 62,973 Texas residents employed by Port users, 15,805 were employees of those firms shipping general cargo through the

Port of Houston. An earlier study had shown that for every 1000 tons of general cargo shipped on received by a typical firm, about 6.5 jobs would be generated. The steel and chemical industries are both very dependent on water transportation. It was estimated in this study that 24,191 steel workers and 22,977 petroleum and chemical workers are dependent on the Port for their jobs.

2. REVENUE AND TAX IMPACTS

Activity at the Port of Houston in 1986 generated 2.9 billion of revenue to the state and national economy. The revenue generated was distributed among five major economic sectors.

Almost 48% of the total revenue ($1.4 billion) accrued to the surface transportation sector which consists of the railroads, trucking firms and pipelines serving the Port of Houston. The revenue earned was based on a typical transportation rate for a given mode (rail, truck, or pipeline) multiplied by the tonnage of each commodity carried by the respective mode. Interviews with shippers and consignees were conducted to determine the modal split by commodity. The pipelines, railroads, and trucking firms received 45%, 30%, and 25% of the $1.4 billion, respectively.

The maritime service sector received over $730 million in revenue. Cargo marine transportation, vessel operations, cargo handling, local service industries, federal and state government agencies, and marine construction represent the different maritime service categories. Terminal operators were interviewed to determine stevedoring revenue per ton estimates for each commodity. The revenue impacts for other maritime service sector categories were based on the percentage of revenue paid out in salaries (in each category). Data collected in interviews provided the ratio of salaries to revenue.

Although the banking and insurance sectors are not directly involved in cargo or vessel operations, they do finance international import/export transactions and insure cargo and vessels. The ratio of salaries to total revenue, as identified through interviews with the major financial institutions, was used to estimate the $550 million in revenue received by this sector.

In 1986, the U.S. Customs Service collected $270 million of customs receipts as a result of Houston seaport activity. Finally, $30 million in revenue was received by the Port of Houston Authority.

Personal income directly generated by Port activity in 1986 was $710 million. The income impact was estimated by multiplying the average annual salary of each port participant (rail employees, steamship agents, longshoremen, etc.) by the corresponding employment impact as shown in Table 19.

An additional income impact was generated due to the respending of these 28,650 Texas residents. It is estimated that for every dollar of income earned in Texas, an additional $1.20 of income will be generated as a result of respending. This respending creates income for those providing goods and services required by those directly employed by the Port. Applying the 2.2 respending multiplier to the personal income directly generated by Port employment results in the $850 million impact.

State and local tax revenue generated by port-related activity

TABLE 19

EMPLOYMENT IMPACT BY COMMODITY AND JOB CATEGORY, 1986

	Commodity											
Category	Steel	Break-bulk	Con-tainers	Autos	Rice	Petro-leum	Other Dry Bulk	Grain	Bagged	Other Liquid Bulk	Not Allocated	Total
Surface Transportation												
Truck	410	251	1312	187	6	306	1727	28	9	184	0	4430
Rail	4	3	34	10	4	206	605	256	15	96	0	1231
Maritime Service												
Terminal Employees	254	271	229	61	28	376	122	67	20	436	0	1864
ILA	136	557	206	68	1	0	60	10	139	0	0	1179
Towing	12	7	13	11	0	41	17	11	3	48	0	163
Pilots	9	5	9	6	0	20	9	6	2	17	0	83
Steamship Agents	77	80	371	87	61	61	15	36	53	80	0	913
Surveyors/Chandlers	82	85	63	13	5	112	14	27	18	64	0	473
Freight forwarders	0	308	714	0	38	19	19	0	0	19	0	1117
Warehousemen	55	541	526	3	0	0	0	0	31	5	0	1160
Container Repair	0	0	702	0	0	0	0	0	0	0	0	702
Local Service	31	18	34	5	1	70	31	19	8	57	0	274
Government	0	0	0	0	0	0	0	0	0	0	217	217
Marine Construction	0	0	0	0	0	0	0	0	0	0	573	573
Towing/Barge	3	3	0	0	0	360	1	7	0	211	0	585
Shippers/Consignees	614	1164	1784	1727	0	2543	988	136	3	2740	0	11698
Port of Houston	0	0	0	0	0	0	0	0	0	0	444	444
Banking/Insurance	0	0	0	0	0	0	0	0	0	0	1544	1544
Total	1689	3293	5986	2178	134	4113	3608	605	301	3965	2778	28650

Source: Martin O'Connell & Associates, The Economic Impact of the port of Houston - 1986, Bethesda, 1987.

was estimated to be $115 million in 1986. Per capita tax burdens were based on state and local taxes. Next, the total tax to employee ratio was multiplied by the total direct and induced jobs to estimate these tax revenues generated by port activity.

APPENDIX C

METHODOLOGY OF THE ECONOMIC IMPACT STUDY OF SPORT FISHING, RECREATIONAL ACTIVITY, AND COMMERCIAL FISHING IN THE GULF COAST IN 1986

APPENDIX C

This study quantified the economic impacts of sport fishing, recreational activity, and commercial fishing on the State of Texas for 1986. The economic contribution of these three activities was calculated by the use of various statistical survey instruments and the development and construction of state and regional input-output models. Output, employment, income, and state and local tax revenues generated by these activities were measured.

Sport fishing and other recreational activity generate economic effects upon both local regions and the State. These effects can produce either direct or indirect business impacts. Expenditures for goods and services purchased by sport fishermen and other recreationists constitute direct business impacts. The dollar value of goods and services produced to supply the businesses which serve these two groups is classified as the indirect business impacts. Wages, salaries and other forms of income to employees, owners and stockholders are also considered to be indirect impacts.

Telephone and mail surveys were used to collect data regarding the frequency with which Texans visited the six estuarine regions included in the study. Each telephone survey participant who indicated he had visited one of the regions in 1986 was then mailed a follow-up survey. Respondents were asked to identify the places visited most often and how much time and money were spent on specific activities.

A two phase process was used to estimate the total visitations and resulting expenditures in each estuarine region. The first phase estimated the total number of households that visited each region, while the second estimated the total number of trips and total dollars spent for transportation, food (restaurant and groceries), equipment rental, guide fees, and bait and boat fuel.

Information was collected from seven regions in Texas. Households were randomly sampled from a panel of names provided by National List Inc., a subsidiary of Dun and Bradstreet. Data obtained from the initial telephone interviews were used to calculate the proportion of households in a region visiting places located along a specific estuary. Estimating the total number of households visiting an estuary in 1986 was accomplished by multiplying the respective proportions by the total number of households in each region.

Total visitation and expenditure levels for both "fishing" and "non-fishing" households were estimated. The expenditure levels for each category were calculated by multiplying the mean expenditure per trip by the total number of trips made by fishing or non-fishing households.

Input-output models for Texas and for each individual estuarine region were developed for this study. Final demand, employment, and income multipliers were derived from these models. Expenditures by category and their related economic impacts can be seen in Tables 12 through 15.

The annual economic impact of commercial fishing in the coastal region was estimated by using data available from the Texas

Parks and Wildlife Department (TPWD), and the regional and State input-output models developed for this study. Detailed information regarding both finfish and shellfish landings in these estuarine systems was made available by the TPWD. It was necessary to allocate these landings to each separate bay system using a weighting scheme developed for previous fisheries resource studies.

The catches of each Bay system located on the coast were assigned to corresponding estuaries. As fish landings vary significantly from year to year, an average of landings in 1984, 1985, and 1986 was used to estimate the typical catch for the current year. Economic impacts resulting from commercial fishing in each estuary system were estimated using the 1986 Texas Input-Output Model and each estuary system's individual input-output model.

APPENDIX D

TRANSPORTATION COST TABLE SHOWING COST RATIOS FOR RAIL AND TRUCK TRANSPORTATION AS COMPARED TO BARGE

TABLE 20

TRANSPORTATION COST RATIOS FOR CHEMICALS & IRON AND STEEL PRODUCTS

		CHEMICALS		IRON AND STEEL	
		RAIL 60,000 LBS	TRUCKLOAD 40,000 LBS	RAIL 60,000 LBS	TRUCKLOAD 40,000 LBS
FROM:	NEW ORLEANS				
TO:	ST. LOUIS	4.4:1	5.9:1	2.9:1	4.1:1
	BEAUMONT	6.3:1	5.0:1	1.7:1	*
	CORPUS CHRISTI	5.8:1	6.4:1	2.2:1	3.3:1
	HOUSTON	6.4:1	5.6:1	3.0:1	4.0:1
	PORT ARTHUR	7.3:1	5.8:1	1.7:1	*
FROM:	HOUSTON				
TO:	NEW ORLEANS	6.4:1	5.6:1	3.0:1	4.0:1
	ST. LOUIS	3.8:1	4.8:1	2.5:1	3.8:1
	BEAUMONT	7.8:1	5.9:1	1.7:1	1.9:1
	CORPUS CHRISTI	9.8:1	7.0:1	1.4:1	1.4:1
	PORT ARTHUR	12.0:1	8.9:1	1.7:1	1.9:1

* Data were not available.

Source: Christian Phillips, Texas A&M University, Cost-Efficient Cargo Distribution Among Transportation Modes, 1976.

NOTES

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2. John Miloy and Christian Phillips, Economic Impact of the Gulf Intracoastal Waterway in Texas. (Texas Ports Association, Texas Coastal and Marine Council, and Sea Grant Program, Texas A&M University, 1974), p. 5.

3. News release of the U.S. Army Corps of Engineers, 16 June 1988.

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6. Lynn M. Alperin, History of the Gulf Intracoastal Waterway. (U.S. Army Corps of Engineers' Institute for Water Resources, Fort Belvoir, 1983), p. 27.

7. Ibid., p. 25.

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9. Ibid., p. 30.

10. John Miloy and Christian Phillips, Economic Impact of the Gulf Intracoastal Waterway in Texas. (Texas Ports Association, Texas Coastal and Marine Council, and Sea Grant Program, Texas A&M University, 1974), p. 5.

11. Lynn M. Alperin, History of the Gulf Intracoastal Waterway. (U.S. Army Corps of Engineers' Institute for Water Resources, Fort Belvoir, 1983), p. 36.

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17. Port of Houston Authority, "Demand for Petrochemicals and Plastics to Remain High in 1989," PORT OF HOUSTON, Vol. 33, No. 2. (Port of Houston Authority, Houston, 1989), pp. 16-17.

18. Lynn M. Alperin, History of the Gulf Intracoastal Waterway. (U.S. Army Corps of Engineers' Institute for Water Resources, Fort Belvoir, 1983), p. 27.

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20. John Miloy and Christian Phillips, Economic Impact of the Gulf Intracoastal Waterway in Texas. (Texas Ports Association, Texas Coastal and Marine Council, and Sea Grant Program, Texas A&M University, 1975), p. 134.

21. Ibid., p. 130.

22. Ibid., p. 132-133.

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24. Martin O'Connell & Associates, The Economic Impact of the Port of Houston. (Martin O'Connell & Associates, Bethesda, 1987), p. II-1.

25. Ibid., p. I-4.

26. Ibid., p. I-4.

27. Ibid., p. I-10.

28. Stanley Holmes and William McFarland, The Economic Significance of Transportation. (Texas Department of Highways, Texas A&M University, 1977), p. 1.

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30. Christian Phillips, Cost-Efficient Cargo Distribution Among Transportation Modes. (Texas Department of Highways, Texas A&M University, 1977), p. 1.

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39. Texas State Department of Highways and Public Transportation, *The Gulf Intracoastal Waterway in Texas 1988*. (State Department of Highways and Public Transportation, Austin, 1988), pp. 37-38.

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Mr. **Nowak**. We have a vote, unfortunately, on the House floor now, so we will stand in recess for approximately 15 minutes and be back for the next witnesses.

[Recess.]

Mr. **Nowak**. The subcommittee will come to order.

We will invite our next witness that we left before the vote, Richard Morrison, who's chairman, Galveston Bay Foundation. If you'll come forward, you may proceed as you desire.

TESTIMONY OF RICHARD MORRISON, CHAIRMAN, GALVESTON BAY FOUNDATION, LEAGUE CITY, TX

Mr. **Morrison**. Thank you, Chairman Nowak. My name is Richard Morrison. I live in Clear Lake, Nassau area, on Galveston Bay. I'm a practicing attorney and as you said, I'm chairman of the Galveston Bay Foundation.

We have filed our statement and supporting documentation and I would like permission to supplement that with letters from Senator Bentsen to Secretary Lujan and Secretary Mosbacher that he has released today concerning referral of this matter to the President's Council on Environmental Quality. We will deliver those letters today and we'd like to make those a part of the record and I believe, sir, they have been delivered to the committee.

Mr. **Nowak**. Mr. Morrison, the Galveston Bay Foundation report dated February 12, 1990, you would also like to be part of the record, I assume?

Mr. **Morrison**. Yes, sir. We would.

Mr. **Nowak**. Without objection, that document plus the letters you mentioned from Senator Bentsen will also be incorporated and we will accept your oral testimony over those insertions.

Mr. **Morrison**. Thank you, Congressman.

I've been involved in studying this matter for approximately the last six years both as the designated member of the Texas Parks and Wildlife Commission to formulate our position on that as well as a member of the executive committee and now chairman of the Galveston Bay Foundation.

During that period of time, many—all of the Federal and State agencies that are concerned with the resource of Galveston Bay have expressed deep concern and outright opposition to the documentation prepared on the plan known as H.G. 50. The agencies which have expressed concern and opposition are the Gulf of Mexico Fisheries Management Council, the Houston-Galveston Area Council, the National Marine Fishery Service, the Texas Attorney General's Office, the Texas Department of Agriculture, the Texas General Land Office, the Texas Parks and Wildlife Department, the Texas Water Commission, the U.S. Fish and Wildlife Service and even the U.S. Environmental Protection Agency has asserted and is on record that the current plan is the most environmentally damaging of the seven alternatives that have been studied.

The corps plan leaves many unanswered questions. I know that one of those questions that this committee has concerned itself with is the disposal of the dredge spoil, estimated at a minimum of 70 million cubic yards upward to 130 million.

Galveston Bay is a shallow bay, some eight to ten feet in average depth. The volume of spoil to be disposed of equates to 12,000 acres, four feet in depth. The current plan of the corps calls for open-bay spoilage. We both collectively as the representative of the many groups that are under our umbrella as the Galveston Bay Foundation as well as all of the resource agencies, have expressed grave concern about open-bay spoilage.

However, the Corps has and will accept according to the corps' report, the local sponsor's plan for confined or beneficial uses of dredged material in the bay or offshore disposal. However, as of this moment, as of today, there are no defined plans which have been environmentally assessed for disposal of the spoil.

The sponsor's first plan, which is contained in our package, called for armored islands on either side of the channel. When pressed about this in recent debates, they adopted orally a different proposal calling for spoil-created bird habitat islands scattered throughout the Bay.

The latest pronouncement as I understand from General Kelly as he testified before this committee last week was for taking the spoil out to sea some three to four miles off the coast since the sponsor had agreed to pay the extra cost of out-of-bay disposal.

The point of all of this is that there has been no environmental impact statements or study done on the disposal of spoil and it's all a mirror game as to what is going to be done with the spoil that is to be disposed of.

I add that in the recent bond election, only $37 million was contained in that pass bond issue for spoil disposal, far short of the needs to pay for any off-shore spoilage or any upland spoilage.

The question then arises, will Congress require an environmentally sound disposal plan before authorization? Will Congress require complete local funding of an environmentally sound disposal plan before authorizing, and, it is the hope of the Galveston Bay Foundation and its members and member groups that Congress will require the corps to address these important questions prior to authorizing the project.

Another major concern of both State and Federal agencies who have studied the corps' plan is the contamination of sediments that will be reintroduced into the water column during the long construction period estimated to be eight to ten years of continuous dredging. I refer the committee to the U.S. Fish and Wildlife study as well as the Parks and Wildlife analysis of that study and its own study enclosed in our submission documenting the toxic threat to aquatic life from dredged material.

It's our understanding that General Kelly of the corps last week represented to this committee that the corps had tested the bay bottom and found it generally clean. Those are not the facts. However, General Kelly did say that the areas found to be unclean would not be deposited in the bay but into upland confined sites—another new revelation in this long saga.

Once again, the corps' plan must be called into serious question because of its failure to address the following: No. 1, the existence of toxic materials contained in the spoil at the bottom of the Bay. I cite again the U.S. Fish and Wildlife and the Parks and Wildlife's position on this and their finding as opposed to the assertion by the corps that there are no toxic material and I have a very graphic demonstration of that involving a tract of land that lies at the north terminus of the planned expansion of the channel. Very recently there was a contract that was outstanding for the port to buy this particular tract of land at the northern terminus of the proposed expansion. That contract had a clause in it that called for the testing of toxic materials deposited on that particular tract of land. The port had that land tested and backed out of the contract because of the high concentration of toxins found on this particular tract. The owners to the rights to sell that tract turned around and have recently sued the port for depositing those toxins from the bottom of that channel and I think that speaks loudly to the fact that yes, we do have a serious toxic problem.

That leads to the next question. What is the corps' plan for disposal of these toxic materials that they will remove from this bay bottom? What upland sites have been selected for the disposition of these toxics and do the owners and operators and neighbors of those toxic sites know that they have been selected for toxic disposal? Have permits and licenses been obtained to dispose of these toxins and what are the volume of toxics to be disposed of that have been there some 40 years?

Finally, who is to provide the money for the disposal of these toxic materials? Far too many questions exist about spoil disposal and toxic material not to mention the impact on higher salinities, the impact on sedimentation and turbidity as a result of the long construction period, the impact on long-term maintenance, the impact on the circulatory system and the cumulative impact of some nine additional projects, Federal projects and corps projects affecting the bay for this project to be authorized.

The economy of the project also—the corps suggests a certain ratio of benefits to costs. There has been a figure suggested that perhaps the economic benefits would be $50 million a year. However, what speaks louder to me about the economics and the justification based on the economy is this. There has yet to be filed with anyone I've talked to, a Congressman and I surmise this committee, any support for the ultimate beneficiaries of the proposed expansion, that is, the Exxons, the Texacos, the Shells, the Cargills and those many industries that lie along the expanded channel and above it because I need to point out that 60 percent of those industries lie north of the end of the expanded channel, but my point is, if this is going to be such an economic boon, why haven't these people who would stand to benefit through the expanded channel come forward and place their name of record as parties who support and would economically benefit through the expansion of their chemical and their oil facilities or their grain facilities?

To the contrary, they are of record in various journals—The Houston Business Journal had an article two years ago by Cargill, the largest grain exporter of the Houston ship channel area that said, no, we don't need it because we don't export to channels having a depth greater than 40 feet and so have some of the oil companies expressed very much reservation to this.

So I don't believe the economics are there either to support this and I urge this committee in light of the stand taken by our senior

Senator from Texas and in light of the many problems to not authorize this project.

Thank you, Mr. Chairman.

Mr. **Nowak**. Thank you very much for your testimony and certainly the background that you provided the subcommittee to look at as we start to analyze these decisions to draw up our own Water Resource Development Bill. Your foundation, I take it, has had a longstanding relationship with this project and I'm wondering how far back the history goes with your involvement in the project?

Mr. **Morrison**. Well, my history goes back some six years, first as a member and then as vice chairman of the Texas Parks and Wildlife Commission. Three years ago, a number of us got together and decided that we had to gather all of the users of Galveston Bay together in an umbrella organization so that we could speak for that bay and we patterned ourselves after the Chesapeake Bay Foundation and formed this organization some two and a half years ago.

So we're in our third year and our organization has a number of individual members but by and large, we have gathered together groups from the commercial fishing industry groups, the sports fishing, the Houston Chamber of Commerce, the Sierra Club and all of those groups that have some concern about and some usage and some role in protecting Galveston Bay's environment and since that time, as far as our involvement, this has been one of our main areas of concern, the digestion of the various information and the formulation of a position on Galveston Bay as it relates to H.G. 50.

I believe you have before you one of our brochures.

Mr. **Nowak**. I'm looking at your advisory trustees. You have people from the Texas Department of Agriculture, the Sea Grant Program, the Texas Water Commission. I'm wondering if the State of Texas has raised any objections to this program proceeding forward?

Mr. **Morrison**. I was able to gather six of the State agencies together four years ago for a joint statement on the H.G. 50 plan and those were the Department of Agriculture, the Attorney General, the Water Commission, the Water Development Board, the Texas Parks and Wildlife Commission and the Agriculture Department.

We all spoke at that time as one group. I understand this is the first time that has ever happened concerning a large Federal project, in opposition to it until more detailed studies, as we call it, a cumulative assessment of the environmental impact. Prior to his leaving office, Governor Mark White wrote a letter that reflected that same position. Governor Clements has altered that somewhat and he is not opposed to this project as I understand it now, pending any further studies.

Mr. **Nowak**. In his request, Senator Bentsen reiterates some of the same points you've made relating to his request for CEQ to have an opportunity to look at this matter and evaluate it before proceeding forward.

Mr. **Morrison**. Yes, sir.

Mr. **Nowak**. I'm wondering if there are other either Congressmen or the other Senator from Texas has taken a position?

Mr. **Morrison**. We met with his staff this morning. I don't want to misquote them but the position taken by his staff was that they did not think that there was going to be any movement in Congress until such time as these issues were resolved.

Mr. **Nowak**. Fine. Thank you very much.

Congressman Stangeland.

Mr. **Stangeland**. I have no questions, Mr. Morrison. I think your statement is very concise and complete and we'll hear the rest of the story.

Mr. **Morrison**. Thank you.

Mr. **Nowak**. Congressman Laughlin.

Mr. **Laughlin**. Thank you, Mr. Chairman, and I should welcome my long-time friend, Dick Morrison, to this hearing. Dick, many supporters for this project have maintained that the widening and deepening of the ship channel will enhance navigational safety. Others have taken the position that to widen and deepen the Houston ship channel will in effect increase the hazards because it would introduce larger and more vessels into the Houston ship channel and I just wondered if you had a view on that and if you're familiar with any studies dealing with the navigational safety issue?

Mr. **Morrison**. Congressman Laughlin, I do. As you probably also know, I was the chairman of the group that was opposed to the recent bond issue that passed regarding this project—local bond issue. In that particular election, we were confronted by a long series of television ads, one of which dealt with a maneuver called the "Texas Chicken." That's where they explain the dangers of a passing ship where two ships would drive towards one another and at the last instance they would turn off and pass dangerously close and this was announced on this television ad as being an extremely hazardous and dangerous maneuver to take. The purpose of the safety message there was when we expand the channel to 50 by 600 feet, that maneuver, that dangerous maneuver called the "Texas Chicken" in those ads would be removed.

We were after a safety study that the Port had authorized and had completed and it took us until—with threats of open records act suits to the Wednesday on the Tuesday before the election. Once we got that, far too late to make anything of it and on a meager $17,000 budget, we found that the study was quite different and had been misrepresented to the public.

The study said:

> The pilots consider this maneuver to be intrinsically safe and the waterway safety records prove them right.

So it was a misrepresentation. They also had contained in that safety study the following findings which were very significant, none of which they thought to publish.

It says:

> The main improvements in safety will be realized because the majority of traffic will not radically change in size or draft after channel improvements.

In other words, they interviewed those very users which I referred the Chairman to as not supporting this channel and found, yes, in fact they were not going to use it by the implementation of wider and deeper vessels. Those grain people and those oil people who depend on that channel for their living, if it expanded, the findings were that they were not going to increase the size of their vessels.

Number 3, they said if the vessels get larger and deeper, some of the safety advantages provided by widening and deepening of the channel are eroded or reduced. So the safety study is in, performed by the Port and show No. 1, if there's not going to be the usage of deeper and wider vessels and if they do use it, then they're going to lose the advantage of the safety because of those wider and deeper vessels.

Mr. **Laughlin**. Thank you very much and thank you, Mr. Chairman.

Mr. **Nowak**. We'll turn to Congressman Pete Geren of Texas.

Mr. **Geren**. Thank you, Mr. Chairman.

Thank you, Mr. Morrison for your testimony. I just have one question. The Federal Government is currently spending millions of dollars on the Galveston Bay National Estuary Program. I wonder if you would just take a minute and describe that program to the committee, and also, do you have an opinion on what you think the impact of this widening would be on that program too?

Mr. **Morrison**. I appreciate that question, Congressman Geren. The Congress has passed and Galveston Bay has been designated as a national estuary. The committee have been formed. From the policy committee to the management committee to the scientific committee, all of those committees are staffed and in place. They are working towards a program of management and study for Galveston Bay.

They're going to study how that Bay actually functions as an estuary and how best to manage that to protect the integrity and the productivity of that particular Bay. These studies are now in their initial stage.

What I hope to see and what would be best now that we're investing the time and the money in the National Estuary Program and Galveston Bay being a significant part, the second most productive bay in the United States behind Chesapeake Bay, that we will wait and put this project on hold until that important Federal program is fully implemented and the studies and the programs are implemented by those Texas people on how best to protect that bay and then we will know what the effects of channelization are and how we can best avoid the damaging impacts that we feel will be done if it is not followed in that logical fashion.

Mr. **Geren**. Thank you, Mr. Morrison.

I have no further questions, Mr. Chairman.

Mr. **Morrison**. Anything else, Mr. Chairman?

Mr. **Nowak**. Thank you very much. We will, on this project, have a little research to do.

Mr. **Morrison**. I understand and I thank you.

Mr. **Nowak**. We have now the broadness of the controversy before us and we'll be back to you if we have further questions.

Mr. **Morrison**. Thank you.

Mr. **Nowak**. Thank you very much for attending.

[Mr. Morrison's prepared statement follows:]

STATEMENT OF RICHARD MORRISON
CHAIRMAN, GALVESTON BAY FOUNDATION

The following federal and state agencies have expressed concern about the expansion of the Houston Ship Channel and all of them have stated that the environmental documentation prepared by the Corps is inadequate. These agencies are The Gulf of Mexico Fisheries Management Counsel, Houston-Galveston Area Counsel, National Marine Fishery Services, Texas Attorney Generals Office, Texas Department of Agriculture, Texas General Land Office, Texas Parks and Wildlife Department, Texas Water Commission, U. S. Fish and Wildlife Service and even the U. S. Environmental Protection Agency has asserted that the plan "is the most environmentally damaging of the 7 alternatives."

The Corps' plan leaves many unanswered questions. The first question concerns disposal of the 70 million cubic yards of spoil that will be displaced by the enlargement of the channel. This represents the largest single dredging project in the history of the United States. Seventy million cubic yards represents 11,500 acres of spoil 4 feet deep. Galveston Bay is a shallow bay of less than 10 feet of average depth. The Corps' plan calls for open bay disposal but they will accept the local sponsor's plan for confined or beneficial uses of dredge material in the Bay and/or offshore disposal. As of today there is no defined plan for disposal of any type. The sponsor's first plan called for armored islands on either side of the channel. When pressed about this plan the sponsor adopted a different proposal calling for spoil created bird habitat islands scattered throughout the Bay.

The latest pronouncement by General Kelly of the Corps was for "taking the spoil out to sea" some "three to four miles off the coast" since the sponsor agreed to pay the extra cost of out-of-bay disposal. The point of all of this is that there is no plan for spoil disposal that has been assessed by an environmental impact statement. With only $37 million dollars contained in the recently passed bond issue for spoil disposal, will there be additional funds, either local or federal, for disposing of this huge volume of spoil? Will Congress require an environmentally sound spoil disposal plan before authorizing? Will Congress require complete local funding of an environmentally sound disposal plan before authorizing? It is the hope of the Galveston Bay Foundation that Congress will require the Corps to address these important questions prior to authorizing this project.

One of the major concerns of the state and federal agencies who have studied the Corps' plan is the impact of contaminated sediments that will be reintroduced into the water column during the long construction period. I refer this Committee to the U. S. Fish and Wildlife Service study enclosed with our submission, documenting the toxic threat to aquatic life from the dredged material. It is our understanding that General Kelly of the Corps represented to this Committee that the Corps had tested the bay bottom and found it to be "generally clean". Those are not the facts and I refer you to the U. S. Fish and Wildlife Service report furnished herewith. However, General Kelly did say that the areas of unclean spoil would not be deposited in the Bay but into upland confined sites. Once again the Corps' plan must be called into serious question because of its failure to address the following:

1. The existence of toxic materials contained in the spoil at the bottom of the Bay.
2. What the Corps' plan of disposal is for the these toxic materials?
3. What upland sites have been selected for the disposition of toxic materials?
4. Do the owners and operators of these upland sites know that they have been selected for disposal of toxins?
5. Have permits and licenses been obtained to dispose of toxic materials on upland sites?
6. What is the volume of the toxic materials to be disposed of in upland sites?
7. Finally, who is to provide the money for disposal of these toxic materials on the upland sites?

Too many questions exist about spoil disposal and toxic materials, not to mention the impact of higher salinities on aquatic life, the impacts of sedimentation and turbidity as a result of the long construction period, the impacts of long term maintenance of the expanded channel, the impact on circulatory patterns in the Bay, and the cumulative impact of all of the projects affecting Galveston Bay for this project to be authorized.

Economically, the 50-foot by 600-foot channel is not warranted. Temple, Barker & Sloane Inc., a nationally recognized marine consulting firm, prepared an analysis of the Corps of Engineers' economic study and found no compelling rationale for the project. No container-ship or chemical-transport advantage exists for the 50-foot depth. There is some marginal advantage to 45 feet of water for grain, but not near enough to justify the project.

In the November 10, 1986, Houston Business Journal, Cargill, Inc., one of the world's largest grain dealers, flatly opposed the project and said that "since Gulf Coast grain isn't being shipped to foreign deep-water ports, there's no need for (a) deep-water port in Houston."

The one commodity that should drive this project - oil- does not support the incremental cost of digging the deeper and wider channel. Indeed, even with a 50-foot channel, our current system of lightering vessels offshore would have to continue, and the amortized cost to transfer a ton of oil would thus increase with this project. Plus, the local oil company sponsors of the Texas City 50-foot project have withdrawn, and no oil company support for the Houston project have been publicly expressed.

To the contrary, oil companies located on the Ship Channel have expressed both publicly and privately their opposition to the deeper channel. The Corps has estimated the total cost of this project at $457 million. These costs do not include the additional cost of relocating and rebuilding docks, pipelines, water intake structures, communication cables and the like, which cost has been placed at upward of $100 million.

The extend to which Galveston Bay produces solid annual economic benefits to our area and its people, and their real values, can best be demonstrated by looking at three major use categories.

Commercial fishing. Galveston Bay accounted for $115 million in commercial fish landings in 1986 dollars. This activity generated approximately $38.3 million in personal income, state tax revenues of $3.2 million and taxes paid to local governments statewide of $4.5 million.

Sport fishing. Sport fishing expenditures in the local area surrounding Galveston Bay during 1986 were over $171 million. Gross Texas business in 1986 resulting from the sport fishing use of Galveston Bay totaled $576.7 million. Local households received an annual income of $104 million from the sport fishing business in the Galveston Bay area. The state received revenues in the form of state taxes from sport fishing in the amount of $7.8 million and local governments statewide received taxes from sport fishing of $13.9 million.

Recreation and tourism. In 1986 there were 103,562 motor boats registered in the four adjacent counties to Galveston Bay. This is 25 percent of the motor boats registered statewide. Galveston Bay has 27 percent of the boat ramps administered by the Texas Parks and Wildlife Department statewide. Between 1976 and 1987, the number of marinas in Galveston Bay more than doubled, from 18 to 40, and their number is stall expanding. In terms of importance to recreational boating in Texas, Galveston Bay accounts for 30 percent of the total number of marinas on the Texas coast and 63 percent of the total wet slips in commercial marinas.

Direct expenditures for "other recreational activities" (hunting, picnicking, swimming, camping, pleasure boating and sightseeing) in the Galveston Bay complex during 1986 were $122.4 million. Gross Texas business resulting from tourism and recreational uses of the Galveston Bay complex in 1986 amounted to $425.2 million. This activity generated approximately $113.3 million in gross personal income, state tax revenues of $5.7 million and taxes paid to local government statewide of $10.1 million.

These guaranteed economic benefits that we all have so long enjoyed are at risk with the plan being promoted by the Corps of Engineers and the Port Authority.

The Corps of Engineers has estimated that the annual economic benefit that may possibly be derived from widening the deepening the Houston Ship Channel to be $50 million. The record is void of any evidence to support this claim. In fact, the evidence shows that the annual economic benefits currently derived from Galveston Bay will suffer because of the severe and crippling impact of the project on commercial fishing, sport fishing, recreation and tourism.

[The information referred to follows:]

GALVESTON
BAY
FOUNDATION

12 February 1990

SUMMARY OF ISSUES ON THE HOUSTON SHIP CHANNEL PROJECT

Project: The Galveston Bay Area Navigation, Texas project, as described in the Chief of Engineers letter of January 3, 1990 and modified by the Assistant Secretary of the Army for Civil Works, proposes to deepen and widen the Houston Ship Channel from 40 feet by 400 feet to 50 feet by 600 feet.

Players: 1. The Port of Houston Authority (Port) is the local sponsor and has authority to issue bonds for the local share of the project, including funds for alternate dredge spoil disposal.

2. The Corps of Engineers (Corps) proposed the project, prepared the Final Environmental Impact Statement (FEIS), and is requesting Congressional authorization in the draft Water Resources Development Act of 1990. Concurrently, the Corps is evaluating criteria for additional studies.

3. State and federal resource agencies have universally condemned the Corps' FEIS. The National Marine Fisheries Service (Commerce Department) and the U.S. Fish & Wildlife Service (Interior Department) are considering referral of the project to the President's Council on Environmental Quality (CEQ), with a deadline of ~~February 16~~ March 9, 1990.

4. The Galveston Bay Foundation and many of its member groups have written in support of a referral to the CEQ.

5. The Galveston Bay Foundation, County of Galveston and Galveston Bay Conservation and Preservation Association filed a Notice of Intent to Sue on January 22, 1990 under the Clean Water Act. Additional issues under the National Environmental Policy Act are to be included in the suit when it is filed.

6. Local channel industries, particularly oil and grain interests, are notably absent in any public support for the project.

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Problems:

1. Changes in the salinity regime of Galveston Bay resulting from increased intrusion from the Gulf of Mexico is expected to have devastating effects on the oyster population. The Corps used an outdated, two-dimensional, steady-state model, which underestimated these changes.

2. Open bay disposal of dredge spoil material has purportedly been abandoned, yet no alternate plans have been submitted, and the impacts, including circulation questions, are consequently unknown at this time.

3. According to state and federal wildlife agencies, the dredging process and spoil disposal methods present a toxic threat to aquatic life in the Bay.

4. With some nine pending federal proposals expected to impact Galveston Bay, the need for a comprehensive assessment of cumulative impacts is indicated.

5. The economic benefit of the project has been questioned by local industries and an independent consultant. Also, consultants hired by the Port have projected different benefits from those indicated by the Corps' FEIS.

6. Representatives of the Coast Guard have questioned the safety value of a wider channel that is also deeper, allowing larger or more fully laden ships. The Port's safety consultant noted a loss of safety value from a wider channel if the channel traffic mix changes from the current condition.

Proposals:

1. Support referral of the Galveston Bay Area Navigation Study, Texas (GBANS) to the President's Council on Environmental Quality.

2. Extend (with funding) the feasibility phase of GBANS, to perform additional studies, without authorization for construction.

GALVESTON
BAY
FOUNDATION

4 March 1990

The Honorable Henry Nowak
Subcommittee on Water Resources
House Committee on Public Works and Transportation
B370A Rayburn House Office Building
Washington, D.C. 20515-6262

Dear Congressman Nowak:

The Subcommittee on Water Resources is considering a bill entitled the Water Resources Development Act of 1990. As chair of this subcommittee, you are hearing testimony on this bill. The Galveston Bay Foundation will be appearing before the subcommittee on March 7, specifically on the proposed project to deepen and widen the Houston Ship Channel--the Galveston Bay Area Navigation, Texas project.

This project has both environmental and economic problems that are as yet unresolved. Enclosed you will find a copy of a letter to Mr. Grady at the Office of Management and Budget which outlines a number of these problems, along with the supporting documentation.

We have heard a report of the Army's testimony to the subcommittee last week and understand that questions were asked about environmental concerns, about toxics in the spoil, and about spoil disposal plans. Please be advised in these regards that:

1. Discussions have been ongoing since the middle of January regarding the serious nature of the environmental concerns of federal resource agencies--the U.S. Fish & Wildlife Service (Interior) and the National Marine Fisheries Service (Commerce)--which are considering referral of the project to the President's Council on Environmental Quality (CEQ). Local citizens, including the Galveston Bay Foundation and the County of Galveston, believe these concerns have not been adequately addressed, support the referral to the CEQ, and have filed a notice of intention to file suit if these concerns are not resolved in the appropriate arena.

2. The letter from the Chief of Engineers (also enclosed) indicates that the army has no objection to open bay disposal of dredge spoil, but will go along with a locally preferred disposal plan of the project's sponsor, the Port of Houston Authority. However, the local sponsor has not defined the nature of this disposal plan and has

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received public authorization for bonds for only a portion of the sum that would be needed for offshore disposal--if that were selected--and only for the first phase of the project. Also, no upland disposal sites for toxic dredge material have been identified.

3. Contrary to what General Kelly indicated at the hearing, one of the major concerns of the resource agencies is the toxicity of portions of the dredge spoil. The U. S. Fish & Wildlife Service has conducted a study (enclosed) documenting the toxic threat to aquatic life of confined and unconfined dredge spoil material from the existing practices of disposal of maintenance dredge material from the Houston Ship Channel. Since this project would be the largest dredging project in the nation's history, these effects could be vastly magnified.

The Galveston Bay system is currently the second most productive estuary in the nation and has been named an estuary of national significance through the National Estuary Program. The bay system covers approximately 600 square miles and has an average depth of less than ten feet, except in the vicinities of navigation channels. The economic well being of the region depends on the delicate balance of the various uses of the bay. Because of the importance of these issues, Senator Lloyd Bentsen (as well as others) supports referral of the project to the CEQ (see enclosed). Authorization of the expansion of the Houston Ship Channel is simply premature at this time.

We look forward to meeting with your subcommittee on Wednesday and answering any questions you may have.

Very truly yours,

Linda Shead

Linda R. Shead, P.E.
Executive Director

Encl

cc: Members of the Subcommittee on Water Resources

GALVESTON
BAY
FOUNDATION

February 9, 1990

Mr. Robert E. Grady
Associate Director for Natural Resources, Energy and Science
Office of Management and Budget
Executive Office of the President
Washington, D.C. 20503

Dear Mr. Grady:

We are writing to urge you to delete the project entitled Galveston Bay Area Navigation, Texas from the draft Water Resources Development Act of 1990. The Corps of Engineers proposes in this project to widen and deepen the Houston Ship Channel from 40 feet by 400 feet to 50 feet by 600 feet (Galveston Bay Area Navigation Study [GBANS]).

The Galveston Bay Foundation is a non-profit membership organization comprised of groups, individuals and governmental entities interested in Galveston Bay. GBF's membership includes commercial and recreational fishermen, yacht clubs, environmental groups and civic organizations from the entirety of Galveston Bay, extending from Beaumont on the east, to Freeport on the south, to Austin on the west, to Dallas on the north. (See attached.) We are concerned about the loss of natural resources, bay productivity, and potential health issues to fish consumers arising from this project, and insufficient economic benefits to justify these losses.

Grave environmental concerns have yet to be resolved on this project. All of the responsible state and federal resource agencies have been unanimous in their condemnation of the existing U. S. Army Corps of Engineers' ("Corps") Final Environmental Impact Statement (FEIS). In spite of this fact, the Corps is pursuing Congressional authorization of the proposed project prior to resolution of these concerns. This process runs counter to the intent, policy and letter of the National Environmental Policy Act.

In fact, two federal resource agencies--U. S. Fish and Wildlife Service (Interior Department) and National Marine Fisheries Service (Commerce Department)--are currently considering referral of the project to the President's Council on Environmental Quality. The Galveston Bay Foundation is one of several citizens' groups supporting such a referral. In addition, the Galveston Bay Foundation, along with the Galveston Bay Conservation and Preservation Association and

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County of Galveston have filed a notice of intent to file suit to halt the project based on our belief that Section 404 of the Clean Water Act has been violated. Additional issues relating to the National Environmental Policy Act will be raised when the suit is actually filed. (See attached.)

The grave environmental concerns associated with this project include the disposal of dredge spoil, release of toxics during dredging and from spoil disposal areas, changes in the salinity regime of the Bay, changes in circulation patterns, and cumulative impacts of the many proposed federal projects with potential impacts on the bay.

The enlargement of the channel would require the removal of a total volume of 109.9 million cubic yards of material over a period of several years and in two construction phases. The volume of maintenance dredged material would increase by approximately 25 percent over current volumes. While the Chief of Engineers has approved a local proposal to confine or beneficially use the dredge spoil, which costs are to be borne by the local sponsor, no plans identifying such uses have been forthcoming. Consequently the impacts of such disposal are unknown. Nine hundred acres of productive bay bottom would be converted to deep channel by the completion of the project. Bottom communities and the fisheries which depend upon them would be adversely affected. The loss of bay bottom is proposed to be mitigated solely by construction of oyster reefs, siting them in unsuitable locations and ignoring the impacts of bay bottom loss on the food chain of the shrimp and finfish populations.

The potential toxic impacts of dredged material have been investigated by the U. S. Fish and Wildlife Service in their March 1989 report. (See attached.) In this report, Dr. Brian Cain states that "Sediment contaminants are available to Galveston Bay biota at chronic toxicity levels during resuspension of these fine sediment particles into the water column." The Texas Parks and Wildlife Department (TPW) has stated (in a letter from Charles D. Travis, Executive Director, dated September 27, 1988 and attached hereto) that "dredging will likely cause the suspension and resuspension of contaminated sediments that potentially have both acute and chronic effects on marine life." The Corps of Engineers relied on outdated studies of dissimilar environments and assumed toxics in sediments would have no bioavailability to aquatic life. Their conclusion that open water or semi-confined "disposal of. . .these sediments would not be expected to have significant adverse impacts on water quality" ignores numerous studies in the 1980's that document toxic effects of suspended sediments on aquatic life.

Enlarging the Houston Ship Channel will provide a conduit for increased salinity from the Gulf of Mexico into the interior of the Bay, with potentially devastating consequences. The Corps utilized an outdated two-dimensional salinity model and concluded that bay salinities would increase by only 1 part per thousand (ppt). Using the two-dimensional model, the density differential with depth in the bay has been grossly underestimated (noted by some researchers to be as much as 15 ppt). The Corps' model also did not consider non-steady-state (real) conditions in the bay. Compounding these limitations is the projected loss of the major oyster reef complex in the bay, with inadequate mitigation. The Bay's salinity regime would be so altered that this highly concentrated oystering area would be exposed to predation and disease such that 60-80% of the oyster population could be lost.

With no spoil disposal plan, the impacts on the circulation patterns of the bay cannot be analyzed. Circulation patterns are important for bringing freshwater and nutrients from the major points of input (primarily the Trinity River) to other parts of the bay, for migration routes of estuarine-dependent species, and for flushing of reefs to control excess sedimentation. Only a three-dimensional model can adequately project circulation impacts, once a spoil disposal plan has been developed. The FEIS dismisses circulation impacts as non-esixtent or minimal.

There are some nine pending federal proposals with impacts on Galveston Bay. With the potential of devastating impacts from this project alone, the cumulative impacts with other projects that involve additional dredging and reduction of freshwater inflows and sediments could produce irreparable harm to the Galveston Bay system. Particular areas of concern are salinity, habitat loss, toxic pollutants, water quality, and nutrient inflows. The need for a comprehensive assessment of cumulative impacts is further delineated in two accompanying reports.

With these grave environmental concerns, one would hope that the economic justification of the proposed project would leave little doubt as to its benefit. This is not, however, the case. The Corps' GBANS study has been contradicted by several independent analyses, including some done for the project's local sponsor, the Port of Houston Authority.

The Corps projections are based on crude oil imports and grain exports. The crude oil projections rely heavily on an increase in receipt of Alaskan and Californian crude and on Mid-East shipments by small to mid-size tankers with capacities of 82,500 to 175,000 dead-weight-tons (DWT). However, Alaskan and Californian crude will likely be transported by pipeline once the All American Pipeline is completed, and otherwise is constrained by the Panama Canal with its draft limitation of 38 feet. Nearly half of the Middle Eastern oil coming to offshore Galveston arrives via VLCC's and ULCC's with capacities of 250,000 to 500,000 DWT, according to an analysis performed by Temple, Barker & Sloane, Inc. (TBS). (See attached.) These ships then utilize a very efficient lightering system for the final leg of their journey across Galveston Bay. This system will have to continue even with a deepened channel. Some small advantage may be gained by a reduced number of lightering trips, but not sufficient to justify the costs of the project, according to TBS. As for the future of tanker size, recent reports in the Bulletin of the Permanent International Association of Navigation Congresses (attached) indicate the historical growth of tankers levelled off by 1970 and is not anticipated to change through the 1990's. Charles R. Cushing states in that volume that "where economics dictate, size growth will continue but only by using broader-beamed, shallow-draft vessels, or the growth of offshore terminals and transfer systems."

For grain exports, the Corps projects a loss of market share if the Houston Ship Channel is not deepened. However, only one-half of the grain exported from the Gulf goes to ports accommodating ships with greater than forty feet of draft. The greater issue of inland transportation to the Port is not addressed. New Orleans has the advantage of barge transportation down the Mississippi, while Houston must rely on more-expensive rail. Again, on the issue of vessel size, the trends are toward broad beams and offshore handling.

Furthermore, the local sponsor's own consultant, Booz-Allen & Hamilton, Inc., based its projection of major economic benefit, not on grain or crude oil, but on a four-fold increase in container ship traffic over the 50-year life of the project. This projection assumes the benefit will be derived from increased trade with Latin America, an area beleaguered by international debt problems. In this commodity, also, arises the issue of vessel size. Currently, less than three percent of the world's 1600 container ships have drafts over 40 feet. Those that do are confined by the Panama canal to one-ocean traffic. Container ships are not projected to vastly increase in size according to either Cushing or John Eyre (also in the Bulletin of the Permanent International Association of Navigational Congresses, article attached). The major constraints in container traffic are viewed to be offshore handling facilities, intermodal transportation systems (i.e. rail/truck/water), and the high cost of larger channels compared to benefits. Eyre notes that "Port costs in dollars and hours often consume more than half of door to door costs."

An additional contradiction appears in the Port of Houston

Authority's safety study by Marine Safety International (attached) which states that the economic advantage of the channel project would be to allow for larger and/or more heavily laden vessels to enter the Port, but that the safety advantage is realized only with the existing mix of vessel traffic.

In consideration of the foregoing, we strongly urge the Office of Management and Budget to remove this project from the draft Water Resources Development Act of 1990. Congressional authorization should not be sought until complete delineation of all environmental impacts in connection with this project has been accomplished. I and other representatives of the Galveston Bay Foundation look forward to meeting with you on Wednesday, February 14, concerning this project.

Very truly yours,

Linda R. Shead, P.E.
Executive Director

Attachments

Houston Chronicle, 2/25/90

Bentsen suggests agency mediate channel dispute

By RUTH PILLER
Houston Chronicle

U.S. Sen. Lloyd Bentsen recommended Saturday the controversial proposal to enlarge the Houston Ship Channel be referred to the White House Council on Environmental Quality.

"This matter is too important for us to sail into uncharted waters. We have to plot a careful course. And the Council for Environmental Quality is best equipped to help us navigate," the Texas Democrat said.

The senator spoke at the University of Houston-Clear Lake during a ceremony to designate Christmas Bay and Armand Bayou as part of the Texas Coastal Preserves Program. Much of his speech dealt with the Ship Channel dispute, which has pitted environmentalists against the Port of Houston Authority Commission.

Bentsen suggested the White House council study the environmental impact of widening and deepening the channel. Among its other duties, the council resolves disagreements among federal agencies on environmental issues. However, referral to the council is a major step and rarely used.

"Economic growth and environmental preservation can and should co-exist. In fact, for Texas, they must," Bentsen said. "I will insist that the most compelling questions be answered before any such project gets under way."

The U.S. Fish and Wildlife Service and the National Marine Fisheries Service say the dredging plan, supported by the Houston port authority, should not go to Congress for authorization or funding until new environmental impact studies are done. Opponents of the channel enlargement fear it could damage Galveston Bay's sensitive marine environment.

Linda Shead, executive director of the Galveston Bay Foundation — a leading opponent of the channel's dredging — praised the senator's recommendation.

"We absolutely support that. We feel like the issues around this project have not been resolved and are not ready to go to Congress," Shead said.

Attempts to reach officials with the Port of Houston Authority on Saturday night were unsuccessful.

Both the Fish and Wildlife Service — a branch of the Department of the Interior — and the National Marine Fisheries Service — part of the Commerce Department — have until March 12 to decide whether to refer their objections to the Council for Environmental Quality.

Those agencies have been negotiating with the Army Corps of Engineers, which issued the channel plan, in an effort to settle their disagreement so it would not have to be sent to the council.

Both departments refused last year to endorse a compromise worked out by the Corps of Engineers, the port authority and the Environmental Protection Agency. The compromise — to obtain congressional authorization and conduct environmental impact studies afterward — was reached after the EPA objected to the original plan.

COUNTY OF GALVESTON

RAY HOLBROOK
COUNTY JUDGE

February 21, 1990

Mr. Robert E. Grady
Associate Director for Natural
Resources, Energy and Science
Office of Management and Budget
Executive Office of the President
Washington, D.C. 10503

Re: Houston Ship Channel Project

Dear Mr. Grady:

This is written on behalf of the Galveston County Commissioners Court to object to the inclusion of the Houston Ship Channel Project in the Administration's Bill entitled "Water Resources Development Act of 1990."

We urge that the project not be included in the Administration's Bill because it has serious environmental problems and will negatively impact Galveston Bay on which a large number of people in Galveston County rely for their livelihood in recreation and commercial fishing. We believe that this project should be referred to the President's Council on Environmental Quality and that additional environmental studies should be carried out before this project is submitted to the United States Congress for approval.

Thank you for consideration of our request.

Sincerely,

Ray Holbrook

RAY HOLBROOK

ssk
cc: Senator Lloyd Bentsen
Senator Phil Gramm
Congressman Jack Brooks

COUNTY COURTHOUSE 722 MOODY GALVESTON, TEXAS 77550 (409) 766-2244

GALVESTON
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SOUNDINGS

Volume 1, Number 4 WINTER 1989-90

The Ecology of Galveston Sandy Beaches

by Donald E. Harper, Jr.

To a casual visitor walking along the waterline of a Texas sandy shore, the beach may appear utterly barren, devoid of life, with only dead shells or pieces of shells giving any indication that life exists in the vicinity. A frequent visitor will know that following a major storm mollusks, crabs, annelids, and other organisms may be cast onto the beach in huge numbers. These animals, however, are normally found offshore and are not part of the beach fauna. A frequent visitor will also note that there are periodic "blooms" of the small clam, *Donax*. The average beachgoer, however, is completely unaware of the enormous numbers of small animals living in the sand in the intertidal zone, how valuable the animals are in the ecosystem, and how disruptive man's activities can be.

I have been conducting a research project on a beach near the Spanish Grant subdivision on Galveston Island (Figure 1) since 1979, attempting to learn more about the natural variations in populations of animals inhabiting the beach, as well as to document the effects of natural and human-caused episodic events, i.e. storms, oil spills, etc. This study was initiated in November 1979 following the stranding of oil from the tanker *Burmah Agate*. The beach was sampled at monthly intervals with the assistance of three separate groups of undergraduate students until December 1980. Waves generated by Hurricane Allan impacted the island during this time. A graduate student continued monthly sampling until January 1982. There followed a hiatus until September 1984 when oil from the tanker *Alvenus* stranded and the beach study was reactivated, again with the assistance of undergraduate students, for 13 months. There was another hiatus until June 1986 when the project was again reactivated and samples have been collected at least semimonthly since then. In 1986, volunteers from the Houston-Galveston Chapter of the Oceanic Society adopted the beach project as a Society project. Later, the volunteer group expanded to include Society members, members of local dive clubs, and interested individuals who learned of the study. Additional data have been generated by participants in "Sandy Beach Workshops" which I began teaching for high school teachers in March 1987. This type of study is very intensive, and I am deeply indebted to everyone who has contributed his or her time collecting and analyzing samples.

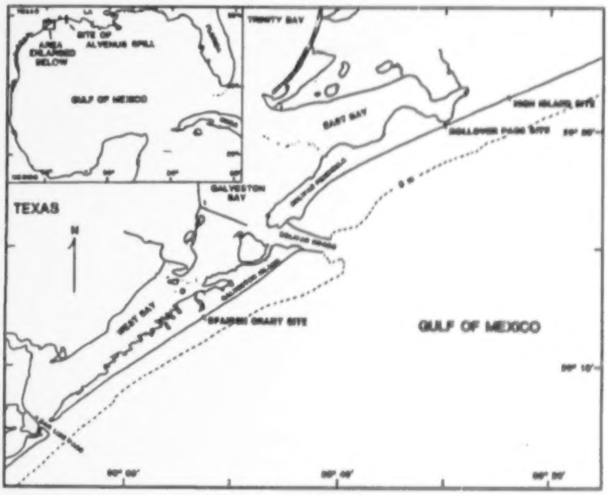

Figure 1. Beach Study Site

General Characteristics of a Sandy Shore

A sandy shore is comprised of several zones, all of which integrade sequentially to provide a smooth transition from one habitat to another (Figure 2). Farthest from the water is the dune system. Stable dunes are those covered by vegetation relatively fixed in position. Active dunes, those closest to the beach proper, are in a state of flux, being alternately formed by accretion of sand and destroyed by storm waves. Dunes may range in height from less than a meter to several meters depending on the beach location. The berm is a region of relatively level, usually dry and powdery, sand in front of the dunes. The

(continued from Page 1)

dunes and berm constitute the supertidal zone, a region usually not covered by water.

The next major region is the intertidal zone (also called littoral zone), or that part of the sandy shore that is alternately covered and uncovered by the tide. There may be a fairly sharp drop-off, called the scarp, where the berm and intertidal zone meet. The area offshore from the intertidal zone is called the subtidal. The subtidal is usually not exposed to air, and generally has a series of bars and troughs, beginning at the foot of the intertidal zone, that parallel the beach; on windy days, the locations of these bars is noted by parallel lines of breaking waves.

Casual visitors may assume that the beach always has the same appearance. Frequent and observant visitors will be aware that changes do occur in the beach shape; the beach appears to increase in height and breadth during the summer, then grow smaller and narrower during the winter. There is, in fact, a seasonal cycle of beach building and reduction. During the summer, waves have less energy and a longer period, and under these conditions, sand is transported from the offshore bars onto the beach. In winter, waves are more energetic and have a shorter period, and sand is removed from the beach, added to the bars, and the bars migrate offshore. Superimposed on this regular seasonal cycle are changes in beach configuration caused by episodic events such as gale force storms or hurricanes. These storms generate large turbulent waves that can remove great volumes of sand from a beach very quickly.

Sandy beaches tend to be very stressful habitats. To survive, an organism must be able to cope with heat, cold, exposure, low dissolved oxygen, excess salt (from evaporation), fresh water (from rain), and be able to reburrow if exposed by waves. The rather harsh conditions imposed by the environment have resulted in relatively few species being able to adapt, but many of those species that have adapted develop enormous populations. This is due to reduced competition for available food and living space. Ghost crabs *(Ocypode quadrata)* may be common in the active dune area and berm in front of the active dunes. Some beetles are adapted to living in the berm, but appear to be less common on beaches subjected to vehicular traffic.

Sampling on beach at Galveston Island
photo by Don Harper

In the intertidal zone, the number of species is also low, but the numbers of individuals of those species often reaches hundreds or thousands per square meter. Three types of organisms comprise the bulk of this abundance on Galveston beaches: members of a family of amphipods, the Haustoriidae; an annelid, *Scolelepis squamata*; and clams in the genus *Donax*. Two types of *Donax* may occur on Galveston Island, *D. texasianus* and *D. variabilis*. *Donax texasianus* usually remains in the lower intertidal and subtidal zones, and is usually present year around. *Donax variabilis* occurs periodically in great numbers and migrates up and down the beach with the tides.

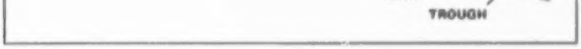

Figure 2. Beach Profile

(continued from Page 2)

Other organisms that may be found in the sand at low tide include the mole crabs, *Emerita* and *Lepidopa*, which may be seen scurrying over the surface of the sand often after being washed out by a wave; the bright red polychaetus annelid, *Lumbrineris*, which burrows through the sand in search of food; and two snails, the moon snail *(Polinices duplicatus)* and the olive shell *(Oliva sayana)*, which burrow through the sand in search of bivalves upon which they feed. The snails are generally easiest to find at low tide and can be located by the distinctive mounded trail of sand left by their passage. Several types of birds often feed on or along a sandy beach also. These include laughing gulls *(Larus atricilla)*, willets *(Catoptrophorus semipalmatus)*, sanderlings *(Calidris alba)*, and black skimmers *(Rynchops niger)*.

The organisms inhabiting the beach are all interconnected in what is known as a food web. Ghost crabs will eat virtually anything, including dead organisms and members of their own species. Haustoriid amphipods and *Scolelepis* polychaetes feed on small algal cells in the sand. *Donax* clams and mole crabs feed on algal cells and other small particles in the water. Birds feed on small ghost crabs, amphipods, polychaetes, and, if they are small enough, *Donax*. Moon snails, olive shells, and some fish also feed on *Donax*.

Major Events on Spanish Grant Beach

Burmah Agate Oil Spill — Oil from the tanker *Burmah Agate* stranded on Galveston beaches on November 6, 1979. Some of the oil became covered by sand that was accreted on the beach and was found as a narrow band about 10 cm beneath the sand surface. The effects of this oil spill appeared to be minimal at Spanish Grant. Comparison of abundances of beach organisms during the following 8 months indicated that the apparent effect, which could be attributed to sampling error, occurred in the first two weeks following the spill.

Hurricane Allan Storm Waves — Hurricane Allan was a Category 5 hurricane when it entered the Gulf of Mexico in August 1980. It lost strength as it crossed the southern Gulf and finally made landfall in south Texas on August 10. Allan never came near Galveston, yet the waves generated by this powerful hurricane caused severe erosion along the upper Texas coast (Figure 3). The dune system was completely wiped out and the post-storm profile was a gentle slope. There was virtually no difference in abundances of dominant beach organisms; only the locations changed. Post-storm populations "moved" closer to the shoreline, but at the same time the beach level was lower, so this "move" is interpreted as an attempt by the organisms to maintain a constant position on the beach relative to the tidal range.

Alvenus Oil Spill — On August 6, 1984 oil from the tanker *Alvenus* stranded on Spanish Grant beach. This resulted in a more severe impact than the *Burmah Agate* spill. Oil settled in the troughs between offshore bars, and provided a source for continued fouling of the beaches after the surface slick was no longer evident. The oil spill cleanup operation consisted of using road graders to move oiled sand from the intertidal zone. Oily sand was then loaded in dump trucks and carried off the beach. Unfortunately a pre-spill sample of beach organisms was not made, and it was not feasible to sample immediately after the spill because of the large amounts of oil (we attempted to sample the beach and only succeeded in fouling all our equipment as well as ourselves). Quantitative samples were obtained on August 8, and we found haustoriids, *Scolelepis* and *Donax* present on the beach at their normal locations. However, there was a virtual depopulation of the beach within a month after the oil stranded, al-

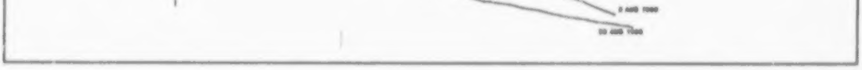

Figure 3. Beach profiles at Spanish Grant Beach before (5 August) and after (20 August) Hurricane Allan.

Ecology

(continued from Page 3)

though we do not know if this was due to toxic oil or to the beach removal clean-up technique. *Scolelepis*, which has free-swimming larvae, began repopulating within two months of the spill, and *Donax* reappeared within three months. The haustoriid do not produce free-swimming larvae and to disperse must creep, swim, or raft from one point to another as adults. The absence of amphipods in the beach means that part of the food web was disrupted — birds and other organisms that fed on amphipods had to obtain their food from another source or another area.

Donax variabilis bloom — A massive recruitment of *Donax variabilis* larvae occurred in May 1987. This larval "set" resulted in enormous numbers of adult *Donax* inhabiting the beach during the summer of 1987. The bloom lasted about three months, and the population was virtually gone by September. The "crash" of the population was probably caused by at least two factors. First, coincident with the bloom was an influx of cow nosed rays (*Rhinoptera bonasus*) into the shallow waters along the beach. The rays were apparently attracted by, and feeding on, *Donax*. Second, the *Donax* population was so large that many individuals migrating downbeach with the tide were unable to burrow into the sand, because of the dense population already there. Thus exposed, they baked in the summer sun. This occurred almost daily through July and August, and may have been the main cause of the *Donax* population decline.

Research is continuing on the beach. Ultimately we hope not only to be able to provide baseline information in case of another major event, but also to determine if there is a regular seasonal pattern to the appearance of species and to discover what abiotic (non-biological i.e. temperature, salinity, etc.) factors are responsible for the observed seasonal patterns. Volunteers are always welcome. Anyone wishing to participate in beach digs and/or assist in sample analysis in the laboratory can contact me at TAMU-Galveston, Department of Marine Biology, P. O. Box 1675, Galveston, TX 77553

Don Harper is an associate professor of Marine Biology at Texas A&M University at Galveston.

GALVESTON
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FOUNDATION

Sampling on beach at Galveston Island

photo by Don Harper

CALENDAR

The next regular meeting of the **Board of Trustees** will be in late January.

The **Executive Committee** of the Galveston Bay Foundation meets on the third Monday of each month.

The **Spill Committee** meets the second Tuesday of each month.

The **Permit Review Committee** is meeting on the second Monday of each month.

The **Development Committee** meets the third Monday of each month.

Contact Don Bass (713-280-3991) for information on the **Education Committee.**

The **Nominating Committee** is developing a list of new trustees and officers for consideration by the Board at the Annual Meeting in late January. If you would like to offer suggestions, please call the office.

Any interested member of the Galveston Bay Foundation is invited to join these committees. For details on time and place for any meetings, contact the Foundation office at 713-334-3665.

Soundings is a quarterly publication of the Galveston Bay Foundation, 3027 Marina Bay Drive, Suite 110, League City, Texas 77573, 713-334-3665.

Galveston Bay Foundation is a non-profit, tax exempt organization.

The editior of *Soundings* is Allan Mueller, 17629 El Camino Real, Suite 211, Houston, TX, 77058.

Submissions for the spring 1990 edition are due to the editor by February 1, 1990.

The opinions of the contibutors do not necessarily reflect the opinions of the Galveston Bay Foundation.

SUPPORT THE GALVESTON BAY FOUNDATION! GIVE A GBF GIFT THIS YEAR!

Your purchase of a GBF poster or T-shirt for friends and family helps promote the Galveston Bay Foundation's work to preserve and enhance the Bay in **three ways.**

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Membership

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Christmas Bay

Education

Permit Review

Newsletter

Other: ____________________

____

Please note any skills, talents, or resources that you would share with us.

____

____

Thank You!!!

During the past year, many members of the Galveston Bay Foundation and the community at large have made contributions to the activities and operations of the Foundation, ranging from volunteers of time to memberships to grants to in-kind donations. Without this support, the Foundation could not have experienced this year's growth in numbers, in stature and in programs. Each contribution plays a vital role in completing the picture that is the Galveston Bay Foundation.

Financial Support

Thanks goes first to each of you who has taken the time and made the financial contribution to become a member of the Foundation. It is individuals like yourselves that will help make the difference in the future of Galveston Bay.

Many of you have gone an extra mile, or more, to offer financial support for the Foundation. Listed below are our major donors from December 1, 1988.

$100 to $1,000

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Ms. Ann McNamara
Mosbacher Foundation
Pembroke Fund
Ms. Ellyn Roof
Mr. D. Eugene Simmons
United Texas Transmission Company

$10,000 and Over

The Moody Foundation
Margaret Cullinan Wray Lead
Charitable Trust

Our office was established this year thanks in large part to the grant from The Moody Foundation. Also of significance was the contribution of space by **South Shore Harbour Development, Ltd. Turner Collie & Braden, Inc.** provided office furniture. **Neil Bishop** and **Gary Jones** provided for delivery of the furniture. **Tony Gonzales** of **EconoTel** gave a discount on an office telephone. **Shell Oil Company** provided some office supplies through the Volunteer Center. **South Shore Harbour Resort and Conference Center** provided the room for our February meeting of the Board of Trustees.

Volunteers

The time commitment offered by our committee members must not be overlooked. Many put in long hours in service to the Foundation, and all add more meetings to their already full calendars. It is these folks that provide the programs that give meaning to our mission to preserve and enhance Galveston Bay. The committees, their chairs and members are noted below. Several committee members have donated refreshments for meetings, including **John Barnhart, Neil Bishop, Glenda Callaway, Morag Cheesman, Sally Fish, John Grimes, Lynne Johnson, Wayne Johnson, Peter Meyer, Dick Morrison, Ellyn Roof,** and **Sharron Stewart.**

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Rosine Hall
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Jim Blackburn, chair
(members listed on the back page)

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Mary Gillette
Laura Hamman
Lynne Johnson
Tricia Lower
Ronnald McElvogue
Roy Morgan

Nominating Committee
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Barbara Link
Gene Simmons

Permit Review Committee
Michael Martin, chair
Jack Gillette
Ellyn Roof
Dave Rubin
Ray Young

Special Projects Committee
Richard R. Morrison, III, chair
Members vary with the project.

Spill Watch Committee
John Grimes, chair
Neil Bishop
Robert Haines
Dana Larson
Gene Poe
Stennie Meadours
Don Moore
Charles Moss
Bob Nailon
Mel Russell
Sharron Stewart
Steve Valerius

In addition to committee work, we have had the active help of members of the **Houston Canoe Club** and the **Houston Sierra Club** in our conservation projects, volunteering their Saturdays last winter and spring to get wet and muddy in the planting of smooth cordgrass and cypress seedlings and in the placement of wood-duck nesting boxes. Also, John Barnhart, John Cheesman, C.L. Standley and the Saltwater Anglers of Texas have generously provided their boats for conservation activities.

GBF *Soundings* owes thanks to all the writers who have contributed articles:

Denise Baker
Richard Baldauf
Don Bass
Jim Blackburn
John Cheesman
Don Harper
Dan Lay
Fred LeBlanc
Bob McFarlane
Allan Mueller
Linda Shead
Peter Sheridan
Fred Werner

Thanks, too, to Allan Mueller for his role as editor and to those who have provided photographs for *Soundings*, including **John Cheesman, Allan Mueller,** and **Jim Olive.** In addition, **Jim Blackburn** and **Jim Olive** contributed substantial numbers of slides toward the development of the GBF slide show. Also in the artistic category, **John Kirksey** developed the current GBF letterhead and provided the first order of stationery.

The new membership brochure, including the cover outline of the Bay, was designed by **Barbara Bain** (and partially funded by a grant from Exxon Company, USA). The following **member groups** helped with the distribution of the brochure to their members, either directly in their own mailings or by providing our office with mailing lists or labels and, in many cases, with a letter from their delegate trustee.

- Armand Bayou Nature Center
- Boating Trades Association
- Galveston Bay Conservation and Preservation Association
- Greater Houston Chamber of Commerce
- Houston Audubon Society
- Houston Canoe Club
- Houston Sportsmen's Club
- Houston Yacht Club
- Lakewood Yacht Club
- League of Women Voters
- Outdoor Nature Club
- PISCES
- Sierra Club/Houston
- Texas Corinthian Yacht Club
- Texas Environmental Coalition
- Texas Shrimp Association
- Wetland Habitat Alliance of Texas

In addition, the following marinas sent the GBF brochure in their monthly mailing:

- Marina Del Sol
- Portofino
- Seabrook Shipyard
- South Shore Harbour
- Waterford Harbor

For the success of our first Galveston Bay Studies program, thanks goes first to **Don Bass,** chair of the Education Committee, who was the inspiration and motivating force for the program. Don and the College of the Mainland also developed and printed the course schedule. Thanks go to all the **teachers,** as well as the **institutions and their coordinators** listed below.

- Brazosport Museum of Natural Science - Charles Moss
- College of the Mainland - Bob Shinn
- Galveston College - Eldrege Langlinais
- Houston Museum of Natural Science - Richard Baldauf
- Lee College - Chee Chee Hart
- Texas A&M University at Galveston - Don Harper
- University of Houston at Clear Lake - Robert Jones

In addition, each institution has an advisory **committee of GBF volunteers** to help develop courses/activities. Also, area **restaurants** and **boating and equipment retailers** placed the Galveston Bay Studies announcement in their businesses for their customers.

Office volunteers have included **Margie Buford** and **Gene Martin** from the Retired Seniors Volunteer Program. **Carole Speranza** and **Mary Carter** in Jim Blackburn's office have also continued to provide many referrals and general back-up support for the Foundation office in 1989.

Many thanks to all of you!

SALT MARSHES OF GALVESTON BAY

by Fred LeBlanc

A salt marsh exists in a world of change. It occupies that thin, transitional strip of real estate that is neither in the water nor on the land. Found in between the low and high reach of the tides, a salt marsh can one day be in the domain of terrestrial beasts, then within a tidal change, be home to aquatic animals. It is a place of great productivity by plants and animals alike, yet a place of extreme and harsh conditions that exclude all but those able to endure in place or move when conditions warrant. Although salt marsh comprises only a part of any estuarine system, it is the habitat that typifies an estuary in the minds of many. Due to the critical functions it provides and the precarious position it occupies, the salt marsh draws great use and abuse from just about all human users of an estuary. The intertidal salt marsh of Galveston Bay is no exception.

Intertidal salt marsh in the Galveston Bay system occupies a narrow zone along the bay margins roughly between mean low tide and mean high tide. Within this zone, almost continuous soil saturation, frequent flooding, and high salinity levels restrict plant growth to one dominant species, ***Spartina alterniflora***, commonly known as smooth cordgrass or oyster grass. Other plant species such as marshhay cordgrass *(Spartina patens)*, black rush *(Juncus roemerianus)*, saltmarsh bulrush *(Scirpus maritimus)*, and saltgrass *(Distichlis spicata)* are associated with salt marsh as well, but generally at or above the normal upper tidal reach. Shallow protected coves and gently sloping shallow shorelines provide the ideal setting for salt marsh in Galveston Bay. Typical salt marshes that can be easily seen from highways include Jones Lake Marsh, located on either side of I-45 between Galveston and Texas City, and Horseshoe Lake, located at the end of the Bolivar Peninsula near the town of Bolivar.

Many values and functions can be attributed to an intertidal salt marsh, most of which directly benefit man. One of the most important functions of a salt marsh lies in its nursery function for juvenile fish and shellfish. Most fish and shellfish found in Galveston Bay use salt marsh at some stage of their life cycle. The shallow water, plant cover, and high primary productivity combine to provide food and shelter for early life stages of important species such as brown shrimp, Gulf menhaden, Atlantic croaker, redfish, spotted seatrout, and flounder. Several investigators have found positive relationships between the harvest of shrimp and the amount of salt marsh in an estuary.

Extensive edge between smooth cordgrass and shallow open water is particularly important to the nursery functions of intertidal salt marsh. Additionally, plant stalks, irregular edges, erosion scars, and exposed roots provide physical cover from predators for young animals. Detritus produced by the plants, plus detritus and silt carried into the marsh from upland sources, concentrate nutrients in the salt marsh. The combination of nutrients and physical cover provide an ideal setting for rapid growth of the immature estuarine dependent species. As those species grow and mature, they move out to deeper portions of the Bay and in many cases, ultimately to the Gulf of Mexico, to spawn, thus beginning the life cycle anew.

Other animals also heavily use salt marshes as feeding and loafing habitat. Wading birds forage for fish and invertebrates among the smooth cordgrass and exposed mud flats. Large numbers of wintering shorebirds probe the unvegetated mudflats for worms at low tide. Ducks sift the mud for seeds, vegetative matter, and small invertebrates. Mammals such as raccoons, opossums, armadillos, swamp rabbits, and rice rats can also be found in the salt marsh, seeking food among the cordgrass and shallow sloughs.

Another significant function of the salt marsh is its buffering of storm waves. Wave energy is rapidly dissipated crossing a flooded marsh, thus saving the upland areas from direct wave impacts. Salt marsh vegetation also stabilizes sediments, preventing wave and current erosion and the resultant loss of property. Innovative shorefront residents take advantage of these traits and build shoreline structures landward of the marsh zone. In some cases, people have actively created or stored salt marsh for these protective benefits.

With all the well-documented benefits and values of intertidal salt marsh, it would seem this marsh type would be protected both voluntarily and legally. Severe wetland losses throughout the country, including an estimated 16 per cent loss of marsh in Galveston Bay, resulted in federal laws which strive to curb the losses. Indeed,

photo by Allen Mueller

(continued from Page 8)

current federal regulations, principally the Clean Water Act and the Rivers and Harbors Act, afford salt marsh and other wetlands a moderate degree of legal protection.

In Galveston Bay, current federal laws strongly inhibit (but not prohibit) the destruction of salt marsh. As a result, most large scale destructions of salt marsh from dredging and filling projects are prevented. The destructive cut and fill canal lot subdivision, exemplified by Tiki Island and Bayou Vista subdivisions, are unacceptable under the current regulatory climate. However, other types of projects that require citing on the Bay but have no other acceptable alternative point of access to the water, do result in unavoidable wetland impacts. Individually, most development projects do not result in large losses. However, cumulatively, the losses can be significant over time.

Aside from the direct damage caused by man, one of the major threats to intertidal salt marsh is sea level rise. Increasing sea level slowly drowns salt marsh as deepening water exceeds plant tolerances. In prehistoric times, such long-term cycles of sea level changes would simply shift the marsh zone landward as new areas of coast prairie come under the influence of ocean tides. Unfortunately, the efforts of man to protect and secure his land from loss to the sea means that extensive lengths of the shoreline are armored with bulkheads and riprap, essentially stopping the ability of intertidal marsh to migrate inland. In the meantime, the marsh in front of the armored shoreline drowns, leaving an unvegetated shoreline and reduced marsh acreage. Subsidence, which causes a relative rise of sea level, has intensified the consequences of sea level rise in many areas of Galveston Bay. The lower San Jacinto River delta illustrates this phenomenon well. Extensive tidal marshes, once found in Tabbs, Scott, and Crystal bays, now are converted to open water. Industrial and urban development preclude the conversion of inland areas to replacement marsh.

photo by Allan Mueller

Marsh losses resulting from sea level rise will ultimately be the greatest threat to our coastal wetlands. Estimates of a 5-foot rise of sea level by the year 2100 will result in a 50 per cent loss of Galveston Bay marsh, due to replacement marshlands not being available. The increasing losses of marsh, along with the armoring of shorelines, will play a major role in changing the nature of Galveston Bay.

It appears the future will continue to attack Galveston Bay and its salt marshes. Development, sea level rise, subsidence, and pollution will all take their toll. Means of protecting and restoring valuable salt marsh (and other habitats) will have to be devised and supported. But first, creating an awareness and acceptance of the values inherent in the Bay and marsh must be cultivated among the many who affect its existence.

Fred LeBlanc is a biologist in the Resource Protection Division of the Texas Parks and Wildlife Department in Seabrook.

LOGO CONTEST WINNERS

The winners of the Galveston Bay Foundation's logo contest have been selected by the judges, Evelyn Merz, Allan Mueller, Sharron Stewart. They are as follows:

1st Place: Jessica Bohart
2nd Place: Denise Ribelles
3rd Place: Danny Johnson

Many thanks go to all the fine entries!

The Executive Committee has yet to decide which design or combination of designs will be used on Galveston Bay Foundation literature. The final determination will most likely be made by the end of the year.

10

A PRELIMINARY STUDY OF WETLAND TRENDS IN THE TRINITY RIVER DELTA

by Allan J. Mueller and Denise L. Baker

The Wallisville Lake project, located near the mouth of the Trinity River, is a multiple purpose project authorized to provide salinity control, navigation, water supply, fish and wildlife enhancement, and recreation. The initial project design provided for a 33,900-foot long dam across the Trinity River delta impounding a 19,700 acre lake at an elevation of 4.0 ft. mean sea level. The project was authorized in 1962 and construction was started in 1966. In response to the 1969 National Environmental Policy Act, an environmental statement was drafted and circulated in 1970. However, in 1971, while the final statement was being prepared, a lawsuit seeking to stop construction was filed in the U.S. District Court. In 1973, a court injunction stopped construction with the overall project 72 percent complete and the overflow dam 85 percent complete.

The overflow dam crosses the western Trinity Rriver Delta wetlands (Fig. 1) and has three uncompleted sections in the following areas: a 470-foot reach centered on the Cross Bayou saltwater skimmer culvert; a 180-foot reach about 1,000 yards east of the Cross Bayou skimmer culvert; and a 680-foot reach beginning just west of the Long Island Bayou saltwater skimmer culvert and extending eastward across the former channel of Long Island Bayou. The eastern third of the overflow dam is in place but not protected by riprap, as was planned.

This study was designed to detect any post-construction changes in wetland habitats below the overflow dam. Sediment from old Old River Lake into the Trinity River delta is obstructed because of the overflow dam. Sediments are now channelized through Cross and Long Island Bayous, bypassing the delta wetlands, into Trinity Bay. Decreased sediment flow could prevent delta building and lead to accelerated subsidence and erosion of existing marshes. This has been observed throughout the coast of Louisiana.

The U.S. Fish and Wildlife Service's National Wetland Inventory maps from the mid-1950s and 1979 were used in determining wetland habitat changes below the overflow dam. An electronic planimeter was used to measure wetland areas in the study site. The area measured below the dam was from the east bank of Cross Bayou extending eastward to the westbank of Jack's Pass. Within the study area, two sections of leveed controlled marsh (1,216 acres and 189 acres) were omitted in determining habitat changes.

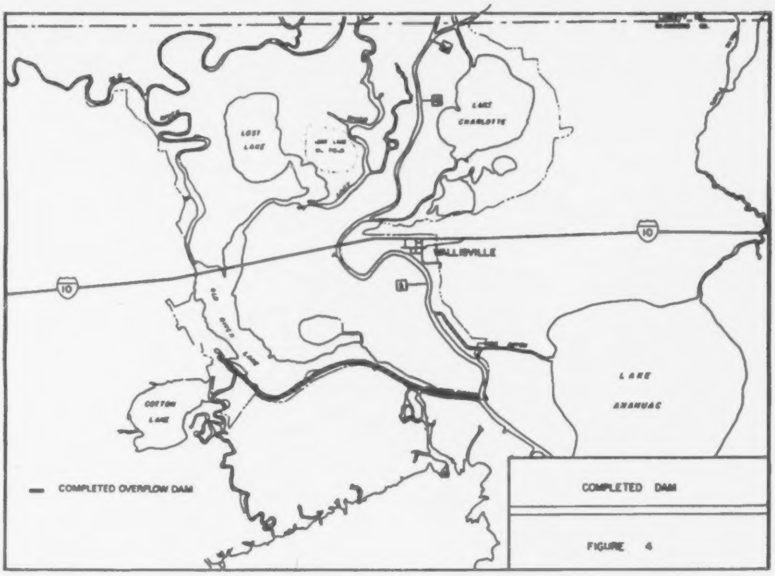

FIGURE 4

WETLAND TRENDS

(continued from Page 10)

Study results indicate that open water habitat increased 48.6 percent from the mid-1950s to 1979 (Table 1). The emergent vegetation mudflat habitats decreased by 13.8 percent and 50.7 percent, respectively. Scrub shrub and scrub shrub/emergent habitats were present in the mid-1950s but not in 1979. Two habitat classes, forest and aquatic bed were present in 1979 but not in the mid-1950s.

The large changes in the open water, emergent vegetation, and mudflat habitats is likely the result of a lack of sediment flow across these Trinity River delta wetlands. Subsidence and erosion are the probable proximate mechanisms of change. The smaller losses of scrub shrub and shrub/emergent and the gain of aquatic bed can largely be attributed to the same process. Two acres of scrub shrub succeeded to forest.

In the six years from the partial completion of the overflow dam (1973) to the 1979 wetland mapping, substantial changes occurred to the wetland habitats below the dam. Although high flows did overtop the dam and flood the delta wetlands, receding flows, when much of the sediment is dropped, were restricted to the two main bayous. This has apparently caused an increase in open water at the expense of emergent wetlands.

The continued conversion of vegetated emergent wetlands to open water will result in a reduction of nursery habitat for estuarine animals such as shrimp and redfish that require these shallow, protected, low salinity environments in their early life stages. Waterfowl, shorebirds, and wetland mammals will also suffer a habitat loss. The restoration of sediment flow across the entire delta marsh would likely reverse this trend.

Allen J. Mueller and Denise L. Baker are biologists with the U.S. Fish and Wildlife Service.

	Year		Change	
Wetland Type	Mid 1950s	1979	Acres	Percent
Emergent Vegetation	3020	2604	-416	-14
Mudflat	357	176	-181	-51
Open Water	1237	1838	+601	+49
Scrub shrub	7	0	-7	-100
Forest	0	2	+2	-
Aquatic bed	0	30	+30	-
Scrub shrub/emergent	29	0	-29	-100

Table 1. Changes in Trinity River Delta Wetlands Below the Overflow Dam From the Mid 1950s to 1979 (Acres)

ANOTHER MATTER OF PERSPECTIVE — A REPORT ON THE SUBMERGED LANDS MANAGEMENT CONFERENCE

On October 1 through 6, Ms. Linda Shead, our Executive Director, and I attended the 8th Annual Submerged Lands Management Conference held on South Padre Island and hosted by the Texas General Land Office. In my opinion, the time was extremely well spent for the following two reasons.

First and foremost, GBF was the only private non-profit conservation organization representing a specific estuary that was present, and there was a great deal of interest generated in the scope and objectives of our type of organization. We were also given the opportunity to make ourselves known to the national and state/provencial agencies of both the U.S. and Canada. We had personal contacts with state agencies from Alaska to Florida and California to Maine as well as all the coastal provinces of Canada including the Great Lakes. As a result of these contacts I believe there is a good chance that foundations such as ours will be invited to present a seminar of their own at the next annual meeting to be hosted by New York in Albany.

Secondly, the subject matter discussed at the conference was both appropriate and timely to the workings of GBF's conservation efforts in that they covered subjects that we have already encountered on numerous occasions. They included such topics as:

- Multi-Agency Coordination
- Mitigation for Impacts on Submerged Lands
- Shoreline Erosion
- Boundary Issues–Physical and Political Considerations

As a result of these contacts, both formal and informal, it was gratifying to see that GBF is apparently right on track in attempting to develop its conservation programs, while at the same time learning that the problems we have experienced are being felt by everyone else in this field of endeavor. I suppose that this, too, is a matter of prospective, in that misery or success does love company after all.

John Cheesman is chair of the GBF Conservation Committee.

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United States Senate
WASHINGTON, DC 20510

March 7, 1990

Honorable Robert A. Mosbacher
Secretary
Department of Commerce
Herbert C. Hoover Building
Fourteenth Street & Constitution Avenue, N.W.
Washington, D. C. 20230

Dear Bob:

As you may be aware, both the National Oceanic and Atmospheric Administration ("NOAA") and the National Marine Fisheries Service ("NMFS") are engaged in discussions with the U.S. Army Corps of Engineers ("Corps") about its proposal to deepen to 50 feet and widen to 600 feet the Houston Ship Channel. The Corps, and the dredging project's local sponsor, the Port of Houston Authority ("Port"), would like to have this project included in the 1990 reauthorization of the Water Resources Development Act, which is expected to be completed before the end of this session of Congress.

The widening and deepening of the Houston Ship Channel has been a source of considerable public controversy in Texas for several years. After careful consideration of the views of both the proponents and critics of the Corps' current proposal, I have concluded that the matter should be referred to the White House Council on Environmental Quality ("CEQ"). Both NOAA and NMFS, as well as the U.S. Fish & Wildlife Service, and several Texas resource agencies, have raised serious questions about the wisdom of proceeding with this project unless it receives further evaluation. At this point, the most appropriate forum in which a meaningful evaluative process can take place is CEQ. Given the nature of the concerns expressed by the resource experts within the Commerce Department, I ask that you join with me in requesting that the Houston Ship Channel project be referred to CEQ.

My decision to support referral of the project to CEQ is premised upon a firm conviction that economic growth and environmental preservation in the Galveston Bay area should, can, and must co-exist. The CEQ process offers the best hope for advancing this objective at the present time, and both the Corps and the Port should view referral as an opportunity to validate its claims that the dredging project will not result in significant, long term environmental degradation of Galveston Bay. In this regard, there are a few overarching issues that ought be exhaustively addressed before the project moves forward.

For example, I think the matter of where and how the dredged spoils will be disposed of and what impact that could have on Galveston Bay remains unsettled. There does not appear to be sufficient specificity in the Corps' current disposal plan to permit a meaningful evaluation of its effects on the Bay. Another concern I have is what impact the project will have on the oyster and other fisheries. In a report issued by NOAA dedicated to Galveston Bay, some resource professionals assert that the dredging project could so "alter the Bay's hydrology that 60 to 80 percent of the oyster fishery could be lost." If that is the case, the mitigation component of the project may well be inadequate for the fisheries.

In addition, simple prudence dictates that we not make these evaluations in a vacuum. There are other projects planned for the Bay and other actions taking place daily within it which might undermine the scientific analysis included in the most comprehensive study on a single project. The number of planned reservoirs near the Bay and the high volume of industrial discharges into it are appropriate illustrations of how the confluence of other projects and factors may alter the conclusions of a study completed simply for a single project. If the Corps' study failed to evaluate the cumulative impact of other projects on the Bay, then more work needs to be done, and CEQ is just the place for it to begin.

I am aware that the Port views the expansion of the Houston Ship Channel as a competitiveness issue, and that increased depth and width of the channel enhances economic benefit to the greater Houston area. My record speaks for itself in that regard, and I am committed to maximizing the beneficial econcmic development of both the Port and the greater Houston area.

I am also mindful, however, that Galveston Bay's economic potential is not solely dependent upon its role as a major waterway for commercial shippping. To be sure, the Port can point to a variety of statistics which might tend to suggest that navigational concerns should be paramount in any discussion measuring economic benefits. Nevertheless, as impressive as these facts are, they are not the only ones that either you or I must consider. Indeed, the economics of this matter are not so one-dimensional. The greater Bay generates substantial economic activity through commercial and recreational fishing, and numerous other recreational opportunities such as tourism and pleasure boating.

Moreover, Galveston Bay is one of the nation's natural treasures, so much so that it is now included in the National Estuary Program --- something which I labored hard and long to achieve. As such, I view the Bay's environmental and aesthetic features as essential to the overall quality of life of the greater Houston and Galveston areas, features which contribute substantially to the desirability of these areas as places people would want either to visit or reside. Consequently, the economic importance of these aspects of the Bay should not be lost in focusing on the primary purpose of the Corps' proposal, namely augmenting the Port's capacity to attract deeper and wider commercial vessels.

Given my support for what is good for Texas, it is important that I stress that I do not oppose expanding the Houston Ship Channel per se. I do insist, however, that any decision to proceed in that direction be based upon a full understanding of its potential economic and environmental consequences. To that end, I have been impressed by the near unanimity of opinion among both the Texas and federal professional resource agencies that there is still significantly more to learn about the dredging project's possible adverse environmental impact. In point of fact, the Corps' own proposal provides for considerable additional research on numerous environmental issues before actual construction begins.

The evident need for more scientific analysis helps to explain the serious division of opinion as to the wisdom of proceeding with congressional authorization before the matter is reviewed by CEQ. On the one hand, the Corps and the Port quite understandably cling to a belief that no additional study is unnecessary at this juncture.

The Corps does, however, anticipate conducting more studies before construction of the project. Yet, these studies, which we are to presume are essential to the success of the dredging project, will not be conducted until after congressional authorization. Frankly, I disagree with this sequence. Others, myself included, are of the mind that authorizing first and studying later "puts the cart before the horse."

Prior to the time Congress acts on the Corps' proposal, I believe that CEQ should have an opportunity to review the qualitative merits of the dredging project's existing Environmental Impact Statement ("EIS") which was completed by the Corps. If CEQ finds the EIS to be inadequate or that it fails to answer with sufficient clarity and detail primary questions about spoil disposal, it has numerous options at its disposal to remedy deficiencies, including requiring completion of a supplementary EIS, additional feasibility studies, and/or disclosure of comprehensive spoil disposal plans and methodologies. Naturally, I would expect CEQ to analyze the proposal under the full panoply of relevant statutory requirements, including but not limited to the National Environmental Policy Act and the Clean Water Act.

As I have stated in summary fashion already, CEQ referral is necessary for this project because a number of questions need to be answered more candidly. Without purporting to exhaust the relevant inquiries CEQ may choose to raise by any means, a thorough review should be undertaken with respect to:

(1) the impact of the dredging project on the Bay's turbidity, salinity, and circulation patterns;

(2) the precise means and design of the method of spoil disposal;

(3) the potential damage to fishery and aquatic resources caused by the significant disturbance of toxic and heavy metal wastes now resting on Bay bottom and whether the mitigation plan proposed by the Corps is sufficient protection and/or compensation for the fishery resources which may be unavoidably jeopardized;

(4) the cumulative environmental impact of the dredging project viewed in conjunction with that of several other major federal projects targeted for the Bay;

(5) the navigational safety issues that may arise as a result of larger and more fully-laden vessels further up the ship channel and with construction of in-bay spoil disposal sites;

(6) the existence of any less intrusive and environmentally harmful alternatives; and

(7) the impact on and compliance with state water quality requirements;

Before another step is taken, I urge you to request that the Corps coordinate with other appropriate federal agencies, including NOAA and NMFS, to work together under the auspices of CEQ. It is CEQ's special function to encourage and facilitate this type of inter-agency dialogue and accommodation, which is designed to enhance the quality of federal decision-making and environmental policy. Only after CEQ has fully evaluated the Corps' proposal and exercised its judgment can there be any meaningful, confidence-building assurance that the planned channel expansion project will not irrevocably damage the vitality of Galveston Bay.

I appreciate the opportunity to share my views on this subject, and I am hopeful that you will join with me in calling for referral of this matter to CEQ.

Sincerely yours,

Lloyd Bentsen

LLOYD BENTSEN
TEXAS

COMMITTEES
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JOINT COMMITTEE ON TAXATION

United States Senate
WASHINGTON, DC 20510

March 7, 1990

Honorable Manuel Lujan, Jr.
Secretary
Department of Interior
Eighteenth & C Streets, N.W.
Washington, D.C. 20240

Dear Secretary Lujan:

As you may be aware, the U.S. Fish and Wildlife Service ("Fish & Wildlife") is engaged in discussions with the U.S. Army Corps of Engineers ("Corps") about its proposal to deepen to 50 feet and widen to 600 feet the Houston Ship Channel. The Corps, and the dredging project's local sponsor, the Port of Houston Authority ("Port"), would like to have this project included in the 1990 reauthorization of the Water Resources Development Act, which is expected to be completed before the end of this session of Congress.

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For example, I think the matter of where and how the dredged spoils will be disposed of and what impact that could have on Galveston Bay remains unsettled. There does not appear to be sufficient specificity in the Corps' current disposal plan to permit a meaningful evaluation of its effects on the Bay. Another concern I have is what impact the project will have on the oyster and other fisheries. For instance, in a report issued by NOAA dedicated to Galveston Bay, some resource professionals assert that the dredging project could so "alter the Bay's hydrology that 60 to 80 percent of the oyster fishery could be lost." If that is the case, the mitigation component of the project may well be inadequate for the fisheries.

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Before another step is taken, I urge you to request that the Corps coordinate with other appropriate federal agencies, including Fish & Wildlife, to work together under the auspices of CEQ. It is CEQ's special function to encourage and facilitate this type of inter-agency dialogue and accommodation, which is designed to enhance the quality of federal decision-making and environmental policy. Only after CEQ has fully evaluated the Corps' proposal and exercised its judgment can there be any meaningful, confidence-building assurance that the planned channel expansion project will not irrevocably damage the vitality of Galveston Bay.

I appreciate the opportunity to share my views on this subject, and I am hopeful that you will join with me in calling for referral of this matter to CEQ.

Sincerely yours,

Lloyd Bentsen

Lloyd Bentsen

Mr. **Nowak**. Now, I'd like to welcome Congressman Jack Fields, also from Texas and I believe he will be accompanied by James D. Pugh who's executive director and CEO, Houston Port Authority.

HOUSTON SHIP CHANNEL IMPROVEMENT PROJECT, TEXAS

TESTIMONY OF HON. JACK FIELDS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS, ACCOMPANIED BY JAMES D. PUGH, EXECUTIVE DIRECTOR, HOUSTON PORT AUTHORITY

Mr. **Fields**. Thank you, Mr. Chairman, and before I enter into my prepared remarks, let me respond to your direct question about the positions of other Members of Congress and I would like to enter for the record a letter that was sent to the Honorable Bob Page, Assistant Secretary for the Army, from Congressman Tom DeLay, Congressman Bill Archer and myself and in this letter, we said in the next to the last paragraph:

> We believe it is unwise to engage in unlimited discussions and hope you will not consider further extending the time for this project to be referred to the President's Council on Environmental Quality. This project's progress through the Congressional authorization process must not be delayed any longer.

I'd also add, Mr. Chairman, I think it speaks volumes that there are no Houston-area Congressmen here today opposing this project moving forward. Having said that, let me just say how much I appreciate you allowing us to come and testify today on this vital project and point out that it's been 23 years since this very committee authorized the Galveston Bay navigation study, a 23-year study. During that time, the Corps of Engineers has spent millions of dollars evaluating every potential environmental impact of this project. While these studies will continue, I think along with my colleagues that it's time to move this project forward and I would urge you to incorporate this critical navigation improvement project within your Omnibus Water Resources Development Bill.

The City of Houston has experienced severe and prolonged economic difficulties in recent years. During that time, the Port of Houston has been one of our city's few bright success stories. The Port of Houston is now our Nation's third largest port and it's the largest port, Mr. Chairman, in terms of foreign trade. More than 4,700 ships call at the port each year and over 150 companies have invested more than $15 billion along the shores. It's been estimated that one in every three dollars in the Houston economy can be directly attributed to the ship channel.

In 1989, the port produced jobs for more than 28,000 Houstonians. In addition, it provides financial benefits to some 160,000 people throughout Texas and it generates an average of $3 billion in positive economic impact and benefits each year. According to a recent study, if this project goes forward, this would create or retain 9,000 jobs in Houston and an additional $2.5 billion would be injected to our economy by the year 2025.

It's those jobs and the other economic benefits that these improvements provide that has led individuals and groups as diverse as the Governor of Texas, the Mayor of Houston, the Harris County Board of Commissioners, the Houston Chamber of Commerce, the Greater Houston Partnership, the Houston Economic Development Council, the Houston World Trade Association, the

International Longshoremen Association, the Houston Pilots Association, the City's two major newspapers, the Post and the Chronicle, and most importantly, the people of Houston, to enthusiastically support this project.

On November 7, 1989, the citizens of Houston by an overwhelming majority voted to approve a $130 million bond issue to help pay the local share of deepening the channel to 45 feet and widening it to 530 feet. This bond issue was widely publicized and it's a critical reason why I'm supporting this project. The citizens of Houston, have spoken and they've spoken clearly. It's time for the Congress to authorize this project and to allow the Houston Ship Channel to remain vibrant well into the next century.

In addition to ensuring that the Houston ship channel will remain competitive with other Gulf Coast ports, these improvements will significantly improve navigation safety in the channel. I've transited the Houston ship channel. It's a narrow and congested waterway and it's very dangerous for ship traffic. Not only is it home port to the largest petrochemical complex in the world but ships are forced to pass in close proximity to each other, executing what we refer to as the "Texas Chicken" to maintain separation as a result of the narrow dimensions of the channel.

An additional 130 feet of width will greatly increase the navigational safety of the waterway, and it will help ensure that a catastrophe like the Exxon Valdez will not occur in the ship channel in the future.

While the project unfortunately, is not without its opposition, I'm confident that this committee—and I've served on this committee—can craft an authorization which will provide the navigational and safety improvements without adversely affecting the valuable natural resources of Galveston Bay. I would respectfully submit that this proposal should be authorized with a stipulation that the additional environmental studies agreed to by the Army Corps of Engineers and the Environmental Protection Agency will be completed. In addition, upon their completion, if those studies find deficiencies in the project, then those recommended changes would be incorporated within the final engineering and design plan.

For instance, I think it's conceivable that these studies could require that all dredged material be deposited off-shore. It's conceivable that additional acres of artificial oyster reefs would have to be built, that mitigation be provided for shrimp and fin fish impacts, and that new techniques be utilized to minimize increases in salinity, turbidity and the resuspension of toxic dredged material.

The local sponsors of this project who will provide nearly $400 million are prepared to accept those changes if that is the result of the study and live with the stipulations mandated by this committee. What we can't live with however, is inaction and further delay.

If the project were authorized this year, it would be well into the next century before a yard of dirt were removed and we must begin the authorization process today. Mr. Chairman, what I'm proposing is neither a new or a radical idea. This committee adopted similar language in 1986 when it authorized the deep draft project for Norfolk Harbor, Virginia in Public Law 99-662. I would urge you to utilize similar statutory language for the Houston Ship Channel.

I think it's important. It's important for our area if we want to continue to grow and I think we can move forward expeditiously with environmental safeguards.

Thank you, Mr. Chairman. Thank you for your time.

Mr. NOWAK. Thank you very much for your statement.

Would any of the others accompanying you make any further remarks at this point in time?

Your total statement, Jack, of course, will be included in the record.

Mr. FIELDS. I understand, Mr. Chairman. Thank you.

Mr. PUGH. Mr. Chairman, my name is Jim Pugh. I'm the executive director of the Port of Houston Authority which is the local sponsor for the Houston Ship Channel Project and I have a very brief statement I'd like to make. I've submitted written testimony I'd like included in the record.

Mr. NOWAK. Without objection, that will be included.

Mr. PUGH. But I do appreciate the opportunity to just take a couple of minutes to certainly amplify what Congressman Fields has so eloquently put before you in terms of the benefits for safety and the economy and the environmental improvement plan.

I'd like to tell you that the Port of Houston Authority as the local sponsor has been trying to reach compromises with the various resource agencies and in fact, the project as recommended by the chief of engineers is a compromise by the local sponsor in conjunction with the EPA and the corps to build this project in a two-phase overall project with a stipulation that certain additional studies be done prior to the start of construction, but I also think it's important that I address a little bit of the previous testimony of Mr. Morrison so that it is not mischaracterized in your mind.

The Houston Ship Channel Improvement Project will probably not result in larger ships coming into the ship channel. It will result in the current vessels being more heavily laden, more fully loaded, which will reduce the unit costs of transportation, not only for the imports of crude oil but the exports of our grain and petrochemicals.

The safety study that we had done by Marine Safety which is at the Kingspoint Merchant Marine Academy, clearly stated that there is a significant improvement to the safety of existing traffic by doubling the separation of those vessels passing in the Houston ship channel.

I should also like to address a couple of other things. I'm not sure whether Mr. Morrison came up with this idea of armored islands but that has never been a proposal of the local sponsor. We have discussed and committed to all the resource agency and the Corps of Engineers that we would look with their assistance to beneficial uses which may include the creation of islands for habitat purposes and the nourishment of wetlands. We would never undertake such a thing as to construct islands anywhere close to the Houston ship channel.

I would also mention that the issue of toxics is one that has not been proven. In fact, the Houston ship channel is dredged continuously for maintenance purposes. We take about 3 million cubic yards of material from that ship channel every year. The Corps of Engineers and various resource agencies have always found the material to be taken to be within the standards established by the Federal Government and in the event there were anything found, I'm sure that the disposal would be taken care of according to EPA guidelines.

There is no proposal for open bay disposal. I think if you read the chief's report, the local sponsor and the corps have committed to beneficial uses or the use of off-shore disposal. When we went to the citizens of Harris County, we specifically included in the bond election referendum $37 million for environmental improvements which is specifically dedicated to the dredged material issue in terms of where it is placed and what method is used for placement.

I would also say, Mr. Chairman and members of the subcommittee, that there are 18 other cities within Harris County that are supporting this channel improvement project. This is an evolutionary process. Just like widening a highway handles an increased traffic flow, this is a vital port to the national interest. In 1987, it generated $7 billion in exports that helped our balance of payments. It is a vital project for the City of Houston, Harris County, the State of Texas, and the United States of America and further delay will cost the national economy along something on the order of $13 million for each year it's delayed.

The local disbenefit that accrues from delay will be much greater. It's estimated by independent studies done that that could be as much as $275 million a year in lost economic impact in the Texas Gulf Coast region.

I appreciate the opportunity to address the subcommittee, Mr. Chairman, and I'd be happy to answer any questions if your Members would have them.

Mr. NOWAK. When you look at the dredging that has to be done, you focus on the area that already has been dredged for navigation over a period of years and what you're proposing is doubling that space, I assume; is that right?

Mr. PUGH. Actually the channel would be enlarged from its current width of 400 feet in the first phase of construction to 530 feet. We have also committed that before the second phase to 600 feet is started, that there would be an additional environmental impact study done to precisely measure the impacts of the first phase.

Mr. NOWAK. The testing—once you get outside your channel—the statements that have been made already by EPA—has that been tested—that soil?

Mr. PUGH. Yes, sir. There are various core samples done throughout the bay as well as the area of the ship channel itself and the previously used submerged disposal areas.

Mr. NOWAK. All the channel area that you're going to go to in the future, the 500 and what?

Mr. PUGH. The 530 feet.

Mr. NOWAK. Has that all been looked at?

Mr. PUGH. Yes, sir. There have been corps samples done to test for contaminants. The EPA was involved in that as well as the Corps of Engineers and outside consulting laboratories.

Mr. NOWAK. Nothing was found that didn't meet the——

Mr. PUGH. That's correct, sir.

Mr. **Nowak**. So you feel from what you've experienced and getting the results of those tests that there would be no problem with any of the soil?

Mr. **Pugh**. Mr. Chairman, if I could just take a minute to respond to that. The Port of Houston Authority is governed by a commission of seven members. They're prominent citizens within our community and are committed to doing things in an environmentally-responsive way.

The Port of Houston has for years led in creating solutions to environmental impacts. We were some of the first users of submerged structures to dissipate wave energy during storms with dredged material. We are not about to foul the waters of Galveston Bay or the Houston ship channel at the gain of some economic benefit. We think and have proven in the past that the economic benefits and environmental benefits can go hand in hand and are committed to doing that and consequently have made an offer to include in this project special funding to improve the environmental of Galveston Bay and take one of the concerns away from the resource agencies.

Mr. **Nowak**. I was going to turn to Mr. Stangeland but he has no questions.

Mr. Packard has no questions.

Mr. Laughlin.

Mr. **Laughlin**. Thank you, Mr. Chairman, and welcome, Jack. I didn't realize you were a predecessor of mine on this committee, but we served on the Merchant Marine Fisheries Committee, so it's good to see you here again.

Mr. **Fields**. Well, thank you.

Mr. **Laughlin**. Jim, it's good seeing you and I want to direct a few questions to you since you're with the Port.

We've heard and I guess I've heard as much as anyone from Texas sitting on this committee a lot of the arguments on the environmental concerns on this project. I wondered—I know the port's heard those same concerns. What have you all done to address the various environmental concerns?

Mr. **Pugh**. We have had numerous meetings, Mr. Congressman, and continue to have meetings as this project moves forward with not only the State resource agencies but the Federal agencies so that we can design jointly the project and how it addresses the various concerns of individual agencies.

Some of the discussions that we have had over the last several months have revolved around what beneficial uses we could make of the material that would enhance the environment from either a habitat standpoint or recreational use standpoint. So those meetings continue to be held with all the resource agencies, both State and Federal, and we're committed to continue to do that throughout the design phase of this project.

Mr. **Laughlin**. We heard testimony a little bit ago and I've heard talk about this television ad, so I've got to ask you. I've not seen it. While I'm in Texas a lot of time on the weekends, I don't get the chance to watch television. This "Texas Chicken" ad that people talk about, what does that mean and how does this project relate to that safety issue being addressed in that ad?

Mr. **Pugh**. Well, currently Congressman, the average vessels that come in are Panamax size in their width or beam. That does not allow a very significant separation between two vessels passing in opposite directions. With the standard Panamax vessel, it actually allows about 130 feet of separation. In order to compensate for that small separation because these vessels are not highly maneuverable like a small boat, the vessel masters will actually turn outward when they approach and use the bow wake to add a little separation as the vessels pass.

In the proposed first-phase project, we would double that separation between vessels to 260 feet which would not have near the risk of something happening caused by what's known as an embankment wave. As they get close to the exterior limits of the channel, the displacement of the vessel works to pull it back to the inside and with more separation, you won't have quite that impact.

Mr. FIELDS. Do you want me to explain that in our vernacular so that people can understand it?

Mr. LAUGHLIN. Sure.

Mr. FIELDS. The ILA and the pilots union are very supportive of this project. Their real motivator is the safety and the way these guys have explained it to me, ships steer directly toward each other. At the last moment—and that's an over-exaggeration but—close to the last moment, they veer. It creates that hydraulic cushion between the ships and in essence, and sometimes they bounce off the sides of the channel back into the center of the Houston Ship Channel.

Now, we have an extraordinary safety record in the Houston Ship Channel and I think it goes to the proficiency of the people who operate those ships—our pilots, very dedicated people—but we do not have the margin of safety that we need and that's again a motivating reason and a very important reason why this project is so necessary.

Mr. LAUGHLIN. Jim, last week General Kelly testified before this subcommittee on a number of projects and part of his testimony on each project dealt with the ratio of cost to benefit. The highlight, I think, for that testimony was a project—I wish it were in my district but apparently in some other State—which had a cost to benefit ratio of 23 to 1. On this one, it was almost 1 to 1. It was 1 point a fraction, a small fraction to 1.

I wondered if you could tell us if you agree with that and what are the benefits to the widening and deepening of this channel to the economy of the Nation's third largest port?

Mr. PUGH. Well, Mr. Congressman, the Corps of Engineers in their assessment is limited to looking at the national benefits. The original project proposed by the Corps H.G. 50 had a benefit cost ratio of 2.5 to 1. When the Port Authority's local sponsor offered this compromise plan to do it in two phases, the first phase, the 45 by 530 channel benefit cost ratio was 1.7 to 1 but that only looks at the national benefits and the economics of marine transportation. It does not look at the employment gains and the economic impact in the community and surrounding area.

The Port Authority has had two studies done, the most recent one by an outside independent consultant that saw those benefits to amount to $275 million a year in economic impact. That is above and beyond the impacts identified to the national economy by the Corps' EIS.

Mr. **Laughlin**. Mr. Chairman, if you'll bear with me, there's just one other area I want to inquire about because of the information thrown at me.

Jim, the Fish and Wildlife Service in particular stated there are toxic contaminants and expressed concern that these contaminants have been found in the normal maintenance operations. You testified somewhat differently than that and I was wondering if you could shed some light. Do you know what the Fish and Wildlife testing procedures are, their techniques, or can you explain why they have indicated a different result from the annual or 18-month dredging results from what you've testified to?

Mr. **Pugh**. Well, basically, I'm not a scientist but I can tell you the basic difference is that the corps in its EIS looks at the average annual impact and some of the other resource agencies look at the 100-year, worst case scenario and that is the difference in opinion on predicting precisely what the impact levels will be.

We have a attempted through various negotiating sessions to get the two different approaches to agree to something between that but we have been unsuccessful. I think by the Port Authority committing to these additional studies on the salinity issue in particular, we'll have more precise data to predict the impacts and build in suitable mitigation measures in the project as it's constructed.

Mr. **Laughlin**. The last question on this island business is, what is meant by armored or what is contemplated by either the port or the corps for armoring—and that may not even be a good English word—but to armor the channel side of these islands and I think I understand vegetating the bay side, but what material is involved there?

Mr. **Pugh**. Normally when they're armoring a land structure, it is to preclude erosion from taking it away and they would do so by putting down a mesh material and then covering that with a certain sized stone depending on the anticipated wave action and hydraulic effect of what's called the laterial drift around that island or that structure.

It is something that is done routinely. We have done it in the past in submerged disposal areas in the bay and it does preclude that material from eroding or spreading into an adjacent area.

Mr. **Laughlin**. Thank you, Jim, and thank you, Jack.

That's all I have, Mr. Chairman. Thank you very much.

Mr. **Nowak**. Congressman Pete Geren.

Mr. **Geren**. Thank you, Mr. Chairman.

Jack, thank you for your testimony and Mr. Pugh as well. Regarding this passing and what is or what is not a safe distance between the two ships, what does the Coast Guard recommend? I'd think they'd have a standard for that.

Mr. **Pugh**. No, sir. The Coast Guard does not have a standard. They do operate in Houston because of its restricted channel dimension, a vessel traffic service that includes both remote-controlled camera—video cameras—and a radar system and that is operated at a couple of other ports in the United States that do have restricted channels but there's no defined minimum separation to my knowledge.

Mr. **Geren**. Mr. Pugh, I have just a couple of questions for you. As I understand it, experts from all State and Federal agencies have expressed serious concerns that your estimates of resource damage are too low.

How do you intend to mitigate and pay for mitigation if future studies show their projections to be accurate and considering the worst case possibility, would the projects still be economically feasible?

Mr. PUGH. First of all, let me say that the environmental impacts are assessed by the Corps of Engineers, not by the local sponsor. I would think that if in the design of the project, the mitigation proved inadequate, that there would be local funding available to remedy any of that inadequate mitigation because the overall safety and economic benefits of this project are so vast for our region and our Nation that we would not want to stop it for want of just a small solution for one specific problem.

Mr. GEREN. All right.

I asked Mr. Morrison earlier about the Galveston Bay National Estuary Program. How does your construction schedule compare to the schedule of that program and how do you plan to comply with the comprehensive conservation and management plan being developed by the program?

Mr. PUGH. Well, Mr. Congressman, the Port Authority as the local sponsor agreed with the Corps and the EPA to consider the results of that study as they became due. That study is going to take probably another three to five years. The Port Authority is trying to keep this project underway and go into some initial studies right now and then the design of the project. If we were able to get this project authorized in the 1990 bill, we would be in the study and design phase for approximately four to five years and begin construction potentially in 1995 to 1996. That construction period would then take about four to five years.

If the estuary study came up with some results during the design phase that we could incorporate into the project, we're committed to doing that but it's sometimes difficult to forecast when those results will come about and whether or not the results are subject to a different interpretation, et cetera.

Mr. GEREN. All right. Thank you very much for your testimony. I appreciate it, Mr. Pugh. I appreciate it, Jack.

Mr. PUGH. Thanks.

Mr. GEREN. I have no further questions, Mr. Chairman.

Mr. NOWAK. Thank you very much.

We will have, as you can see, some intense oversight and viewing of this project as we move forward on both sides of this question because of its complications, that have been forwarded to us, will be reviewed in the future and if we have any other clarifying questions we will get them to you and certainly Jack, I want to thank you for all of the time that you have on this project to present it to us.

Mr. FIELDS. Thank you, Mr. Chairman.

[Mr. Fields' prepared statement follows:]

STATEMENT BY THE HONORABLE JACK FIELDS (R.-TEXAS) AT THE HOUSE PUBLIC WORKS AND TRANSPORTATION SUBCOMMITTEE ON WATER RESOURCES OVERSIGHT HEARING ON ITS OMNIBUS WATER RESOURCES DEVELOPMENT ACT OF 1990, MARCH 7, 1990

Mr. Chairman, I would like to thank you for allowing me to testify in strong support of the Army Corps of Engineers' proposal to widen and deepen the Houston Ship Channel.

It has been 23 years since this committee authorized the Galveston Bay Navigation Study. During that time, the Corps of Engineers has spent millions of dollars evaluating every potential environmental impact of this project.

While these studies will continue, it is time to move this project forward. I would urge you to incorporate this critical navigation improvement project within the Omnibus Water Resources Development bill.

Mr. Chairman, the city of Houston has experienced severe and prolonged economic difficulties in recent years. During that time, the Port of Houston has been one of our city's few bright success stories.

The Port of Houston is now our nation's third-largest port and the largest in foreign trade. More than 4,750 ships call at our Port each year and over 150 companies have invested more than $15 billion along its shores.

It has been estimated that one in every three dollars in the Houston economy can be directly attributed to the Ship Channel. In 1989, the port produced jobs for more than 28,000 Houstonians. In addition, it provides financial benefits to some 160,000 people throughout Texas and it generates an average of $3 billion in positive economic impacts each year.

According to a recent study, dredging the Ship Channel to 45 feet would create or retain 9,000 jobs in Houston and an additional $2.5 billion would be injected into our economy by the year 2025.

It is these jobs and the other economic benefits that these improvements will provide that has led individuals and groups as diverse as the Governor of Texas, the Mayor of Houston, the Harris County Board of Commissioners, the Houston Chamber of Commerce, the Greater Houston Partnership, the Houston Economic Development Council, the Houston World Trade Association, the International Longshoremen's Association, the Houston Pilots Association, the city's two major newspapers -- the Post and the Chronicle -- and, most importantly, the people of Houston to enthusiastically support this project.

On November 7, 1989, the citizens of Houston -- by an overwhelming majority -- voted to approve a $130 million bond issue to help pay the local share of deepening the channel to 45 feet and widening it to 530 feet. This bond issue was widely publicized and it is a critical reason why I am supporting this project.

Mr. Chairman, the citizens of Houston have spoken. It is time for the United States Congress to authorize this project and allow the Houston Ship Channel to remain vibrant well into the next century.

In addition to ensuring that the Houston Ship Channel will remain competitive with other Gulf Coast ports, these improvements will significantly improve navigational safety in the channel.

Mr. Chairman, I have transited the Houston Ship Channel. It is a narrow and congested waterway making it dangerous for ship traffic. Not only is our port home to the largest petrochemical complex in the world, but ships are forced to pass in close proximity to each other, executing what we refer to as "Texas chicken" to maintain separation as a result of the narrow dimensions of the channel.

An additional 130 feet of width will greatly increase the navigational safety of the waterway and will help ensure that a catastrophe, like the EXXON VALDEZ, will not occur in the Ship Channel in the future.

Mr. Chairman, while this project unfortunately is not without its detractors, I am confident that you can craft an authorization which will provide the navigational and safety improvements without adversely affecting the valuable natural resources of Galveston Bay.

I would respectfully submit that this proposal should be authorized with the stipulation that the additional environmental studies agreed to by the Army Corps of Engineers and the Environmental Protection Agency will be completed. In addition, upon their completion, if these studies find deficiencies in the project, then those recommended changes should be incorporated within the final engineering and design plan.

For instance, it is conceivable that these studies could require that all dredged material be deposited offshore; that additional acres of artificial oyster reefs be built; that mitigation be provided for shrimp and fin fish impacts; and that new techniques be utilized to minimize increases in salinity, turbidity and the resuspension of toxic dredged material. Mr. Chairman, the local sponsors of this project, who will provide nearly $400 million, are prepared to accept these changes and live with the stipulations mandated by this committee.

What we can't live with, however, is inaction and further delays. If this project were authorized this year, it would be into the next century before a yard of dirt were removed. We must begin the authorization process today.

Mr. Chairman, what I am proposing is neither a new nor a radical idea. In fact, this committee adopted similar language in 1986, when it authorized the deep-draft project for Norfolk Harbor, Virginia in P.L. 99-662. I would urge you to utilize similar statutory language for the Houston Ship Channel.

While it will not be easy to balance the various competing interests, we can have a modern and efficient port system in Houston without destroying the natural resources of Galveston Bay. These two goals are not mutually exclusive. I am convinced that this project can be authorized in such a fashion so that those who utilize the Port of Houston and Galveston Bay can both be satisfied.

The people of Houston need a modern and efficient port system. I urge you and the other distinguished members of this subcommittee to authorize this vital project so that we can begin the process of modernizing our waterway for the future. With your help, we can make the future a bright one for thousands of Texans and others whose livelihoods depend on the Houston Ship Channel. Please join with us in this effort.

Thank you, Mr. Chairman.

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Congreſs of the United States
House of Representatives
Washington, DC 20515

March 6, 1990

The Honorable Robert W. Page, Sr.
Assistant Secretary of the Army
Department of the Army
The Pentagon
Washington, D.C. 20310-0103

Dear Mr. Page:

We, the undersigned, wish to express our support for the proposed Houston Ship Channel improvement project. During the recent bond election to fund the Port of Houston Authority's portion of the proposed widening and deepening of the Channel, our constituents overwhelmingly voiced their support. Over 63 percent of the voters in Harris County, Texas, voted in favor of this much needed project.

We are convinced that the project, which is economically justified, must be completed for three basic reasons: safety, economic benefits, and environmental improvements. All of Texas is struggling to recover from a severe and prolonged economic downturn. The Port of Houston is a shining light in our economic recovery.

We must continue to keep the Port of Houston competitive and we must strive to safeguard against vessel accidents in the Channel. The proposed improvements called for in this project would double the space between ships as they pass through the Channel and would, by 2025, provide the positive economic benefits of an additional 9,000 jobs and approximately $2.5 billion in new revenues for the local economy. We must have these improvements.

The Corps of Engineers has spent millions evaluating every potential consequence of this project. It has been microscopically studied for 23 years. We believe it is unwise to engage in unlimited discussions and hope you will not consider further extending the time for this project to be referred to the President's Council on Environmental Quality. This project's progress through the Congressional authorization process must not be delayed any longer.

We urge you to move forward expeditiously with these important navigation improvements and we appreciate your ongoing efforts to make this project a reality.

With best wishes,

Sincerely,

Tom DeLay
Tom DeLay
Member of Congress

Bill Archer
Bill Archer
Member of Congress

Jack Fields
Jack Fields
Member of Congress

[Mr. Pugh's prepared statement follows:]

TESTIMONY PRESENTED BEFORE
THE U. S. HOUSE OF REPRESENTATIVES
WATER RESOURCES SUBCOMMITTEE OF THE
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

BY

JAMES D. PUGH

EXECUTIVE DIRECTOR

PORT OF HOUSTON AUTHORITY

MARCH 7, 1990

Mr. Chairman and members of this subcommittee, thank you for including the Houston Ship Channel project in this hearing today and for allowing us the opportunity to visit with you about it.

Gentlemen, we welcome the opportunity to finally present this project to Congress, as it has been a 23-year endeavor. This Houston Ship Channel improvement project has been under study and consideration by the United States Army Corps of Engineers since 1967 when the Congress authorized examination of the proposed improvements. The Port of Houston Authority is the local sponsor for the project and is committed to its completion.

The decision in 1967 to undertake this project was based on a sound vision of what would be needed for the Port of Houston to remain a competitive and safe port. In view of the economic crunch Houston suffered and from which we are beginning to recover, those reasons are even more viable today. There are three very basic reasons this project is so vital: 1) safety; 2) economic impact; 3) environmental improvements.

Let's examine each of these factors. The Port of Houston Authority's mandate is "To provide the benefits of deep draft navigation to the citizens of Harris County". To accomplish this task, without regard for the safety of the people who utilize the channel would be irresponsible. During more than 20 years of study, ships have gotten larger and the space between them as they meet or pass in the the channel has decreased. It is due to the expert skill of Houston pilots that a major collision has not occurred. We do not want to extend the demand on those skills any further. Accidents do occur. It is our job as sponsor of the Houston Ship Channel to minimize the factors affecting an accident on the channel. Widening the channel from 400 to 530 feet will assist in our efforts to minimize the contributing factors to accidents. Avoiding an oil spill that might result from a collision in the bay is of grave concern to us. In view of the recent disaster in Prince William Sound, we cannot place enough emphasis on the importance of the improvements to safety that this project would accomplish. Each year, nearly 5,000 ocean-going vessels and 30,000 barges navigate the Houston Ship Channel. These improvements will double the passing area for the large ships. Houston Pilots have heavily endorsed this project. We need to remember, gentlemen, that these ships are manned by fellow human beings who deserve to execute their jobs with a minimum of risk.

As I mentioned earlier, and of which I am sure you are aware, Houston has been struggling to recover from a severe economic crunch. The Port of Houston is a major factor in accelerating Houston's recovery. The Port of Houston generates an annual impact of $3 billion per year into the Texas economy, affecting more than 160,000 jobs in the state as well. Studies have estimated that the project by 2025 would create an additional 9,000 jobs and would boost the local economy by $2.5 billion. The project would allow ships currently calling the port to be fully loaded, reduce transportation unit costs and accommodate larger ships. The primary beneficiaries of these improvements would be crude petroleum, grain, petrochemicals and, over the long-term, containers. These cargo markets have, since 1974, represented a relatively constant three quarters of the international water borne trade through the Port of Houston. It is not difficult to ascertain the effect on the national economy that the reduced cost of import crude oil and the increased export capability would allow. A recent Corps of Engineers report calculates the benefits of the project at approximately $42 million per year beginning in September of 1999 should the project proceed as planned. If; however, delays are experienced, the national economic loss in benefits is estimated at $2,500,000 the first year, escalating to $13,800,000 the third year.

These benefit loss figures are related to the reduction in vessel operating costs, delays and casualties that would result from the realization of this project.

There has been much speculation regarding the proposed environmental impact of this project on Galveston Bay. The operative word here is speculation. Being men of integrity and intelligence, I am certain that you respond to facts rather than speculation and the facts regarding the environmental impact of this project simply stated are that contrary to "speculation" that it will reap harm upon the environmental condition of the bay, it will in fact foster environmental improvements. First and foremost, as I mentioned earlier, the reduction of the risk of a major oil spill is a direct and immediate benefit of the widening of the channel. In addition, the project includes the creation of islands and wetlands in Galveston Bay. The creation of these areas will provide bird and fish habitat while enhancing commercial fishing. The channel is continually dredged. This has been the norm for decades. Yet, Galveston Bay is one of the most productive bays for fish and oysters in the United States. In 1966 when the 40 foot project was completed, the commercial catch in Galveston Bay was 7.9 million pounds with a value of $7.5 million. In 1986, the catch was 13.2 million pounds with a value of $15.1 million. This is not an either/or situation, Gentlemen. Navigational improvements and a healthy environment are not mutually exclusive. To the contrary, our project will enhance and improve the environment in Galveston Bay.

You have already heard Congressman Fields speak to the many important endorsements this project has received - none of which are more important than the overwhelming support of the people - constituents. In the November 1989 bond election, over 63% of the voters in Harris County - people who fish, enjoy boating, own homes on the beach - weighed the facts - the improvements to safety, the environment and the economic benefits to the nation and their city, in particular, and voiced their support of the project by approving the sale of $130 million in bonds to fund the Port's portion of the cost. The people have spoken - loudly.

Finally - and perhaps, most importantly, this project has been probed for 23 years with microscopic eyes by the Corps of Engineers, the EPA, and the consultants. Every morsel of impact - economic, safety and environmental has been examined and analyzed. We are absolutely convinced, as is the Corps of Engineers, that every aspect of the project has been studied, reviewed, studied again, reviewed again - enough is enough. There has been enough time, energy, and more than enough money spent to study the effects of the project. We are absolutely committed to seeing this project completed. We are comfortable with the compromises that have been reached and see no reason for further delay. While we certainly do not want to entertain another delay by having the project referred to CEQ, we are not afraid of the scrutiny that agency or any other might engage in studying the project. If that is what it will take to keep this project progressing through the Congressional process - then so be it. But one thing is crystal clear. This project must receive Congressional authorization, now.

Safety demands it and the promise of the economic benefits embrace it.

We most adamantly request its inclusion in the House Water Resources Bill. This nation and particularly the people who's livelihood's depend on the Houston Ship Channel remaining a competitive and vibrant port are depending on you to keep the wheels moving.

Thank you for your attention and your interest.

Mr. NOWAK. Thank you.

Now I'd like to welcome before the committee another member who has had great patience with us, Robert W. Davis from Michigan and—he had run out of patience, but we will accept his statement into the record and await to have him back possibly on another date.

[Mr. Davis' prepared statement follows:]

TESTIMONY BY THE HONORABLE ROBERT W. DAVIS (R.-MICH.) BEFORE THE PUBLIC WORKS AND TRANSPORTATION COMMITTEE, SUBCOMMITTEE ON WATER RESOURCES HEARING ON THE WATER RESOURCES DEVELOPMENT ACT OF 1990: MARCH 7, 1990.

Mr. Chairman, I appreciate the opportunity to testify before this Subcommittee on the Water Resources Development Act of 1990.

Mr. Chairman, I am here to ask that your Subcommittee include three items of great interest to me in your upcoming legislation. The foremost of these items is the reauthorization of the construction project at Sault Ste. Marie, Michigan. This project would construct a second large lock at this site.

As many of you on this Subcommittee are aware, this is a project which is vital not just to northern Michigan, but to all of the Great Lakes region and to many sectors of the national economy as well. This project would benefit both U.S. and Canadian shippers who use this major international waterway. Not only is this lock system crucial to international commerce, but it has also been cited as crucial to our national defense for the transportation of critical raw materials.

In 1986, your Committee included authorization for this project in H.R. 6. At that time, despite the trend toward requiring a non-Federal cost share, the Committee recognized the unique nature of this project and recommended the project be fully financed by the Federal Government. Unfortunately, as finally passed, the legislation included a non-Federal cost share requirement. However, the unique nature of the project has not changed. The need for an additional large lock has not changed. Wide-ranging support from all of the Great Lakes states has not changed; and, I hope, this Subcommittee and the Full Committee's support for this project has not changed.

I understand that next week you will receive additional testimony in support of this project from the State of Michigan, the Lake Carriers' Association and the American Iron Ore Association. They too will testify to the wide range of users of this lock system, the need for an additional large lock, and the necessity for full Federal funding for this unique project.

The second item of interest is the transfer of the property currently leased to the Ira D. MacLachlan American Legion Post #3 in Sault Ste. Marie, Michigan, by the Army Corps of Engineers. This provision would transfer ownership of the facility from the Army Corps to the American Legion Post with appropriate reversion clauses in the case of national emergency or in the event the American Legion Post no longer needs the property.

Mr. Chairman, this property has been occupied by the American Legion since 1919. In the 1930's when the building was lost to fire, the American Legion rebuilt the facility. In 1964, the Post spent $85,000 on remodeling of the facility and has been responsible for all upkeep and maintenance. This transfer would remove the Corps from any further liability and allow the American Legion Post to continue with plans for further remodeling of the facility without the uncertainty of limited-term leases.

The final item of interest concerns the lock operations at Alanson, Michigan. This lock allows access to the Inland Waterway through the Crooked River. In the past, while the Army Corps maintained ownership of the lock, the local township actually operated the lock. Funding for these operations has been a constant item of disagreement between the Corps and the local units of government and has strained relations and affected operations.

The Corps has now worked out an arrangement with the State of Michigan which will allow the State to operate the lock for a one-year period. We are now seeking authority for the Corps to negotiate a longer-term lease between the State and the Corps. This provision would also allow the State to assess fees to offset the operations and routine maintenance of the lock. This leasing arrangement with the State of Michigan will finally put to rest many of the items of disagreement between all of the interested parties and allow the boaters of northern Michigan continued access to the Inland Waterway.

Mr. Chairman and Members of the Subcommittee, I appreciate the opportunity to bring these items of interest to your attention and hope that all of these items will be included in your legislation.

Thank you again.

# # # # # #

RWD:dwm

Mr. Nowak. Now I want to turn to Congressman Ron Packard and invite to the witness table Ben Ramsey who's a council member, City of Oceanside.

Mr. Packard.

OCEANSIDE, CA

TESTIMONY OF HON. RON PACKARD, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. Packard. Thank you, Mr. Chairman. I thought when you were talking about running out of patience, you were surely going to introduce me. [Laughter.]

Mr. Packard. I know that Mr. Ramsey won't run against me in my district. Not only is he a good friend but when he sees how difficult it is to wait it out back here, I'm sure he doesn't want any part of it.

No, it's really a pleasure to speak briefly about the City of Oceanside. I live in the City of Oceanside and it has one of the premiere harbors on the West Coast. Even though we have a beautiful harbor, it isn't without its problems. There are many serious problems—sand build-up at the harbor entrance which creates dangerous shoals and makes dangerous wave action for our boat entries. Also, it requires regular dredging. We have of course the need for additional facilities there.

My prepared statement which I'll ask be entered into the record, Mr. Chairman, we certainly do have important issues before this committee, a sand bypass project, routine dredging as I mentioned, the completing of harbor fluidizers, a flood control project on the San Luis Rey River which I've spoken about in my prepared statement and I will not speak to them further but simply take great pleasure in introducing Mr. Ben Ramsey. He's the deputy mayor of the City of Oceanside, a city of over 100,000 people. He's certainly one of the leaders in our community in trying to resolve the problems that exist at the Oceanside Harbor. He would like to speak to us on the committee, particularly on one project, but it certainly doesn't mean that there are not several others that we need and will be addressing on the committee. I'm very grateful for my fellow committee Members and the Chairman for their willingness to address these issues.

This committee's been very favorable toward the projects and the City of Oceanside and it's with great pleasure I introduce Mr. Ben Ramsey.

TESTIMONY OF BEN RAMSEY, COUNCIL MEMBER, CITY OF OCEANSIDE, CA

Mr. Ramsey. Thank you. We have submitted written testimony and I would like to have that included into the record.

Mr. Nowak. Without objection, so ordered.

Mr. Ramsey. All right. Thank you.

Honorable Chairman and subcommittee members, as the local sponsor, the Oceanside Harbor District appreciates the opportunity to attend and participate at this hearing on a project that is very important to us. I'm before you today representing two public agencies—the Oceanside Harbor District as vice president of the Board of Directors, and the City of Oceanside as its deputy mayor.

We wish to thank Congress for your efforts in trying to make Oceanside Harbor a safe and efficient harbor. The feasibility studies to improve the harbor breakwaters is now complete and preconstruction engineering and design will be completed in fiscal year 1990.

It is now time to authorize construction. The general public's interest, both commercial and recreational, are served by this project as are the military needs of the Nation. As you may know, our harbor is the home port for United States Coast Guard cutter and we share a common interest with the Marine and Navy traffic from Camp Pendleton Marine Corps Base.

We have experienced continuous damages to our inter-harbor facilities and vessels moored there. Over the last 12 years, we have expended over $8.6 million in repairing these damages. We also experience problems at the entrance from shoaling causing hazardous navigation conditions resulting in the loss of lives in the entrance channel.

There have been 142 boating accidents, 56 serious injuries and 13 deaths within the harbor entrance. Our practice of stationing a rescue boat at or near the entrance during the boating season is one of the things that prevents these numbers from being significantly higher. On behalf of the Oceanside Harbor District and the City of Oceanside, California, I urge the subcommittee to support storm damage reduction and navigation improvements to our harbor entrance.

The estimated total cost of this project is approximately $4.0 million of which $3.2 million is Federal and 1.7 million is non-Federal. We as the local sponsors, are willing and financially able to provide that required cost sharing of the project and are anxious to move forward with construction of the improvements.

Again, I wish to thank you for allowing the Oceanside Harbor District and the City of Oceanside to state our support for the proposed project at Oceanside Harbor.

I thank you.

Mr. NOWAK. Thank you very much for your testimony. It certainly confirms what Mr. Packard has been urging us to look at and as we move forward, we will certainly have the opportunity to go into some detail with the Corps of Engineers and try and see where we can determine there is a benefit that we can consider that will move this whole process forward for you.

Let me turn to Mr. Packard for any other statement he would like to make at this time.

Mr. PACKARD. Mr. Chairman, I have no other statement. If you'll simply accept my written statement into the record, I'll be satisfied with that.

Mr. NOWAK. Without objection, so ordered.

Mr. RAMSEY. Thank you very much.

Mr. NOWAK. Once again, thank you for the time and your patience in bringing this matter before us. We'll be able to get back to you when we have further information.

Mr. RAMSEY. Thank you very much, sir.

Mr. NOWAK. Thank you.

[Mr. Ramsey's prepared statement follows:]

OCEANSIDE HARBOR DISTRICT

1540 HARBOR DRIVE NORTH   OCEANSIDE, CALIFORNIA 92054

(619) 722-1418

March 5, 1990

BEN RAMSEY

TESTIMONY TO
THE HOUSE
WATER RESOURCE SUBCOMMITTEE

Storm Damage Reduction and Navigation Improvements
Oceanside Harbor, California

Honorable Chairman and Subcommittee Members:

We wish to thank Congress for your efforts in trying to make Oceanside Harbor a safe and efficient harbor. The feasibility study to improve the harbor breakwaters is now complete and preconstruction engineering and design will be completed in F/Y 1990. It is now time to authorize construction. The general public's interests, both commercial and recreational, are served by this project as are the military needs of the nation. As you may know, our harbor is homeport for a United States Coast Guard Cutter and we share a common entrance with marine and navy traffic from Camp Pendleton Marine Corps Base.

We have experienced continuous damages to our inner harbor facilities and vessels moored there. Over the last 12 years we have expended over $8.6 million in repairing the damages. We also experience problems at the entrance from shoaling causing hazardous navigation conditions, resulting in the loss of lives in the entrance channel. There have been 142 boating accidents, 56 serious injuries and 13 deaths within the harbor entrance. Our practice of stationing a rescue boat at or near the entrance during the boating season is what prevents these numbers from being significantly higher. This has caused direct economic impact to both commercial fishing and our community.

It is requested that the project for Navigation and Beach Erosion Control at Oceanside Harbor, California authorized by the River and Harbor Act of 1965 be modified to authorize the Secretary of the Army to implement storm damage reduction and navigation improvements in accordance with plans and conditions recommended in the report of the Chief of Engineers.

The estimated total cost of the project is $4,970,000 of which $3,263,000 is federal and $1,707,000 is non-federal. We, as the local sponsor, are willing and financially able to provide the required cost sharing of the project and are anxious to move forward with the improvements.

On behalf of the Oceanside Harbor District and the City of Oceanside, California, I urge the subcommittee to support storm damage reduction and navigation improvements to our harbor entrance.

Again, we wish to thank you for allowing the Oceanside Harbor District and the City of Oceanside to state our support for the proposed project at Oceanside Harbor.

Ben Ramsey
Deputy Mayor
City of Oceanside

[Mr. Packard's prepared statement follows:]

Statement of
THE HONORABLE RONALD C. PACKARD
Representing the 43rd District of California
before the Subcommittee on
WATER RESOURCES
March 7, 1990

MR. CHAIRMAN. I AM PLEASED TO SUBMIT THIS STATEMENT FOR THE RECORD TODAY TO MAKE A PLEA FOR AN AUTHORIZATION FOR SOME VITAL PROJECTS IN THE 43RD DISTRICT OF CALIFORNIA.

OF THE HIGHEST PRIORITY IS THE EXPERIMENTAL SAND-BY PASS PROJECT IN OCEANSIDE, CALIFORNIA. TO DATE THIS PROJECT HAS BEEN EXTREMELY SUCCESSFUL. SAND HAS BEEN REPLACED IN AREAS ON BEACHES THAT IN PRIOR YEARS HAD BEEN ERODING AWAY. YOU CAN ACTUALLY SEE THE DIFFERENCE ON THE BEACHES. IN ADDITION, THIS PROJECT HAS ALSO HELPED TO SAVE THE FEDERAL GOVERNMENT MONEY, IN THAT THE HARBOR AT OCEANSIDE HAS NOT NEEDED SOME COSTLY ROUTINE DREDGING. I AM TOLD BY FOLKS AT THE CORPS THAT THIS HAS BEEN MADE POSSIBLE BY THE SUCCESS OF THE SAND BY-PASS PROJECT. YET, NO FUNDING APPEARS IN THE PRESIDENT'S BUDGET REQUEST FOR THIS SUCCESSFUL PROJECT. THIS IS NOT A REAL SUPRISE IN THAT THE ADMINISTRATION'S BUDGET HAS NEVER INCULDED FUNDING FOR THIS PROJECT. THIS SUBCOMMITTEE AND THE COMMITTEE ON APPROPRIATIONS HAS, HOWEVER BEEN VERY SUPPORTIVE IN THE PAST AND I ASK THAT THIS SUBCOMMITTEE BE SUPPORTIVE OF THIS VITAL PROJECT AGAIN THIS YEAR.

THE REQUEST FOR FY91 FOR THE PROJECT IS $2.7 MILLION.

$1.0 MILLION--OPERATIONS AND MAINTENANCE.

$ .7 MILLION--DESIGN & ENGINEERING.

$1.0 MILLION--CONSTRUCTION.

THE CONSTRUCTION MONIES ARE NEEDED TO COMPLETE PHASE II (THE INSTALLATION OF FLUIDIZERS). THE SAND BY-PASS SYSTEM AT OCEANSIDE CAN LEAD TO THE DEVELOPMENT OF NEW TECHNOLOGIES FOR REDUCING FEDERAL MAINTENANCE DREDGING COSTS NATIONWIDE. THIS PROJECT HAS STRONG LOCAL, STATE, AND FEDERAL SUPPORT. THE SUCCESS OF THE PROJECT IN THE PAST, I FEEL, WARRANTS CONTINUED FUNDING IN FY91.

ALSO IN OCEANSIDE, CALIFORNIA, THERE IS CURRENTLY A FEASIBILITY STUDY WITH REGARD TO A SEPARATE PROJECT ON THE OCEANSIDE HARBOR ON THE VERGE OF COMPLETION. IN DISCUSSIONS I HAVE HAD WITH REPRESENTATIVES OF THE CORPS, I UNDERSTAND THAT THE CORPS WILL HAVE AN AUTHORIZATION REQUEST TO THE COMMITTEE WITHIN THE MONTH ON THIS PROJECT.

THE SAN LUIS REY RIVER PROJECT IS NECESSARY AS A RESULT OF STORMS THAT HIT THE OCEANSIDE AREA IN 1978 AND 1980. THESE STORMS CAUSED DAMAGES IN EXCESS OF $6 MILLION IN 1982 DOLLARS. THE PROJECT WILL PROVIDE A MODIFIED SINGLE-LEVEE PLAN AND WILL PROVIDE STANDARD PROJECT FLOOD PROTECTION TO PREVENT FUTURE FLOODING. THE LOCAL ENTITIES INCLUDING THE CITY OF OCEANSIDE AND THE U.S.

FISH AND WILDLIFE SERVICE SUPPORT THIS CONCEPT. THE CORPS IS CURRENTLY IN CONSULTATION WITH THE UNITED STATES FISH AND WILDLIFE SERVICE AND THE CITY OF OCEANSIDE AND IS EXPECTED TO A PRODUCE A FAVORABLE RECCOMENDATION IN THE VERY NEAR FUTURE.

Mr. NOWAK. Our next witnesses are from the National Coal Association, Vice President Joseph E. Lema.

Mr. Lema, will you come forward?

We will, as we have with others, take your testimony and insert it in the record.

MONOGAHELA RIVER, PA

TESTIMONY OF JOSEPH E. LEMA, VICE PRESIDENT, NATIONAL COAL ASSOCIATION

Mr. LEMA. Thank you, Mr. Chairman, members of the committee. I will be very brief. We certainly do appreciate the opportunity to appear before this subcommittee. My name is Joseph E. Lema. I'm vice president for transportation of National Coal Association. NCA's member companies account for approximately 75 percent of the coal produced in the United States.

I'm appearing before the subcommittee to urge that you continue to make progress in timely, orderly construction of replacements at obsolete locks and dams on the inland waterways which Congress and this subcommittee, in their wisdom, inaugurated by the Water Resources Development Acts of 1986 and 1988. That legislation established cost-sharing for construction of improvements to navigation on the waterways, notably building modern, adequate capacity lock chambers where river barge tows encounter congestion on the waterway system.

Such congestion causes substantial increases in the delivery price of U.S. commodities including coal, resulting in higher consumer prices for electricity and for products purchased in domestic trade as well as reduced competitiveness of U.S. commodities like coal in world trade.

For example, it is estimated that when a typical Ohio River tow comprised of a towboat and 15 barges moving 22,500 tons of coal is delayed due to lockage problems, losses of about $20,000 per waiting day are incurred. The two previous biannual waterways authorization bills have made a start in replacement of certain critical locks and dams.

Now, NCA urges the subcommittee to continue its leadership in preserving the strategic asset to the U.S. represented by an efficient inland waterway system. Specifically, Mr. Chairman and members of the committee, we urge the authorization of construction projects to replace obsolete locks and dams at McAlpine on the Ohio River in Indiana and Kentucky, locks 2, 3 and 4 on the Monogahela River in Pennsylvania where three installations would be replaced with two sets of locks and dams and Marmet on the Kanawha River in West Virginia.

The Monogahela River installations will be 93 years old by the year 2000. The McAlpine locks and dam must be replaced by the last half of this decade to prevent major backups of river traffic. The Marmet locks and dam also will be a serious capacity constraint in the 1990s, especially in consideration of the rapid increases in coal cargoes moving from terminals on the Kanawha River in West Virginia to locations on the mainstem of the Ohio River and its tributaries as well as to the Mississippi River and then southerly down to Louisiana and the Gulf of Mexico.

Mr. Chairman, I noted that earlier today at this hearing three of your colleagues—Congressman Wise of West Virginia speaking for the Marmet project, Congressmen Hamilton of Indiana and Mazzoli of Kentucky, speaking for the McAlpine project--concur with our view that the projects are ready for authorization, realizing that the corps studies will soon be completed. Their words express more eloquently than mine the importance of moving forward now in a 1990 Water Resources Development Bill with project construction authorizations at these key points on the inland waterways.

From 1988 to 1989, and again from 1989 to 1990, we estimate the demand for coal transportation services to grow at 2.6 percent per year. Further, we expect that demand to increase between 2 to 3 percent annually through the turn of the century. Coal production in the U.S. totalled 975 million tons in 1989. We forecast that to grow to 997 million tons or nearly 1 billion tons in 1990 and to rise to between 1.1 and 1.2 billion tons annually by the year 2000.

With that in mind and realizing that replacement of locks and dams at a particular location usually takes five to seven years or more for completion, we believe that these projects should now be authorized for construction in the Water Resources Development Acct of 1990.

Thank you, Mr. Chairman and members of the committee for allowing me to appear today. I request that my full statement be placed in the record of this hearing. I will be glad to answer your questions.

Mr. Nowak. Without objection, your statement certainly will be incorporated and we want to thank you for your patience and being able to confirm some of the other problems that are out there in our locks and dams and trying to move our goods through to keep competitive and still bring into those locks the technologies that allow us to do that. An awful large amount of those dams, or the locks rather, are quite old and one cannot underestimate the value of efficient transportation in making us competitive with other nations and certainly the other members that spoke that you mentioned I'm sure not only want us to open up the arteries but want coal to move from West Virginia through those arteries.

We appreciate your coming.

Congressman Stangeland.

Mr. Stangeland. I welcome Mr. Lema. I have no questions for him at this time but we certainly will look at his requests and take them in their appropriate order. Thank you.

Mr. Nowak. Mr. Packard.

Mr. Packard. No questions.

Mr. Nowak. Okay. Once again, we may be back as we try to balance this system, we look at the new cost-sharing in the bill and as we get the waterway user tax accumulating some dollars, perhaps that will help us at least put the non-federal match in shape so that we can go further with the rehabilitation program that is so needed and as you expressed, we have to start moving on it.

Thank you again for your attendance.

Mr. Lema. Thank you, Mr. Chairman. The coal industry appreciates your leadership and that of this subcommittee.

Mr. Nowak. Thank you.

[Mr. Lema's prepared statement follows:]

STATEMENT OF JOSEPH E. LEMA
VICE PRESIDENT FOR TRANSPORTATION
NATIONAL COAL ASSOCIATION
BEFORE THE HOUSE PUBLIC WORKS AND
TRANSPORTATION SUBCOMMITTEE ON WATER RESOURCES
WASHINGTON, D.C.   MARCH 7, 1990

Mr. Chairman, my name is Joseph E. Lema. I am vice president for transportation of the National Coal Association. NCA represents coal producers, sellers of coal, coal consumers, and other organizations associated with the U.S. coal industry. Our member companies account for approximately 75 percent of the coal produced in the U.S. and shipped to electric utilities, other industrial coal consumers, and countries supplied coal by U.S. coal producers engaged in world coal trade.

Coal is a major commodity transported in waterborne commerce. Water carriers, the inland waterways system, the Great Lakes, and ports at inland and coastal locations are critical elements of the transportation infrastructure essential for the movement of coal, as well as other bulk commodities like grain, petroleum products, chemicals, and various minerals in domestic and export trade. I am appearing before the subcommittee to express the views of the coal industry in the U.S. on the important need to make early progress in construction projects that will increase the efficiency of waterborne freight transportation systems and thereby improve the competitiveness of U.S. coal as a domestic energy resource and in world coal markets.

Through enactment of water resources authorization bills in 1986 and 1988, the U.S. has launched a vital program for orderly construction of navigation improvements critically needed on the inland waterways system. NCA believes that, conforming with a bi-annual process of authorizing waterways projects, it is desirable for legislation to be enacted early in this decade, initiating construction at nine points along the inland waterways:

- McAlpine, Montgomery, Emsworth, and Dashields Locks and Dams on the highly utilized main stem of the Ohio River in Indiana, Kentucky, and Pennsylvania.
- Locks and Dams 2, 3, and 4 on the Monongahela River, an Upper Ohio River Basin Tributary in Pennsylvania.
- Marmet Locks and Dam on the Kanawha River, an Upper Ohio River Basin Tributary in West Virginia.
- Kentucky Lock and Dam on the Tennessee River, a principal component of the Tennessee-Tombigbee Waterway System in Kentucky.

Replacements are warranted at these locations in order to efficiently accommodate current and projected river traffic, including coal and other commodities, which calls for the addition and enlargement of lock chambers to handle modern towboat-and-barge movements, and to assure safety in consideration of deterioration that has occurred over many years of operations. By the year 2000, the newest of these installations will be 58 years old, and the others will be in a range of 64 to 93 years old. Therefore, their obsolescence attributable to age of the structures, and the volume of river traffic which must perform lockage maneuvers in passing through the lock chambers, together make replacements justified. Otherwise, water carriers, shippers, exporters, and consumers will face the consequences of inefficiencies characterized by increases in electricity rates due to higher fuel costs and reductions in the competitiveness of U.S. exports like coal which are carried to ports on the Gulf of Mexico by barge lines.

NCA realizes that certain feasibility studies and other preliminary engineering and design work must be performed by the U.S. Army Corps of Engineers in the course of replacing obsolete locks and dams such as those previously mentioned. We believe that those activities have progressed to a point today where it would be reasonable and timely now to authorize construction at several locations selected from the group of nine projects, with additional authorizations planned for subsequent bi-annual authorization bills. The projects NCA urges the subcommittee to incorporate in a Water Resources Development Act of 1990 are:

- McAlpine Locks and Dam on the Ohio River in Indiana and Kentucky.
- Locks and Dams 2, 3, and 4 on the Monongahela River in Pennsylvania. (replace three installations with two)
- Marmet Locks and Dam on the Kanawha River in West Virginia.

By the year 2000, the McAlpine installation will be 79 years old, and the Corps feasibility study shows it will be essential to replace the existing 600-foot auxiliary lock chamber with a 1,200-foot by 110-foot chamber to accommodate traffic in the 1990's. The Monongahela River Locks and Dams will be 93 years old by the turn of this century, and are seriously deteriorated. The Corps' studies indicate that the existing installations would be replaced with two sets of locks and dams of adequate size to match the tow capacities being provided in present reconstruction of Locks and Dams 7 and 8 on the Monongahela River at Gray's Landing and Point Marion. The Marmet Locks and Dam will be 66 years old by the year 2000. The Kanawha River is experiencing rapid increases in coal traffic, reflected in the ongoing reconstruction of nearby Winfield Locks and Dam, and similar added capacity is needed at Marmet.

The Ohio River main stem from its confluence with the Mississippi River at Cairo, Illinois, through its Upper Ohio River Basin Tributaries, the Kanawha and the Monongahela Rivers, and with its connectivity to the Tennessee-Tombigbee Waterway System via the Ohio River's junction with the Tennessee River, represents a major interstate route for commerce flowing into and out of mid-America, including exports reaching the Gulf of Mexico from the Ohio River corridor utilizing the Mississippi River, and likewise, the Tennessee-Tombigbee Waterway System. The Ohio, Monongahela, and Kanawha Rivers, respectively, carry approximately 76, 24, and 12 million tons of coal annually, out of total traffic, respectively, of approximately 197, 33, and 16 million tons of all commodities. Those figures illustrate both the high utilization of these rivers in the movement of bulk cargos, and the important roles they hold for shipments of U.S. coal.

Of special significance is the Ohio River System's function as a high density barge corridor linking not only with many other rivers, including the Monongahela, Kanawha, Alleghany, Cumberland, Green, Kentucky, Tennessee, and ultimately, the Mississippi Rivers, but also with a multitude of terminals to which coal and other bulk commodities are brought by railroad and truck for transshipment by barge. Intermodal rail-barge and truck-barge transportation can be sources of effective competition with all-rail transportation for particular shipments, thereby allowing market forces to hold down transport rates and the delivered price of coal and other commodities, thus increasing the competitiveness of U.S. products. In addition, because rivers generally do not pose traffic conflicts where barges intersect other surface modes, i.e. railroads and highways, river traffic is not disruptive as it flows through urban or rural areas.

Nevertheless losses up to $20,000 per waiting day are incurred when a towboat-and-barge movement loaded with 22,500 tons of coal for a typical set of 15 modern barges in a single tow on the Ohio River becomes delayed in clearing a lock due to congestion on the river.

Barge fuel taxes are collected from commercial users of the inland waterways pursuant to the Water Resources Development Act of 1986. The Act further established a cost sharing mechanism for construction projects of the type NCA is seeking, utilizing revenues from the Inland Waterways Trust Fund which receives its income from the fuel taxes and interest on monies on deposit in the Trust Fund. That cost sharing arrangement is now utilized to finance a number of priority navigation construction projects on the Mississippi, Warrior, and Columbia Rivers, as well as on the Ohio, Monongahela, and Kanawha Rivers where eight of the nine new additional projects sought by NCA are located. The other is on the Tennessee River close to its junction with the Ohio River.

We believe that presently available Trust Fund revenues and income to be secured through the schedule of fuel taxes set under present law will be adequate to cover cost sharing requirements for both currently authorized construction projects and those NCA now seeks, realizing that it is not uncommon for such projects to take five to seven years or more for completion in a year-to-year phased program of construction tasks. We believe it is sensible, therefore, to enable the earliest possible completion of priority construction projects, including those already authorized and the others that we offer for consideration by this subcommittee, by the passage of legislation in 1990 which authorizes these projects, and thereby moves forward with their implementation by the turn of this century, making timely use of funds dedicated for this purpose.

The Corps estimates that inland waterways traffic will increase from 0.7 to 2.1 percent annually in this decade. Further, the Corps projects coal traffic to grow from 1.9 to 3.2 percent annually in the 1990's. Therefore, today's high utilization of the inland waterways by coal and other traffic can be expected to place new demands on the ability of the waterways infrastructure to accommodate barge movements safely and efficiently. We agree with the Corps' estimates of future river traffic with regard to the movement of coal. One out of every five tons of coal shipped is handled by water carriers, a share of total transportation that is expected to continue, and perhaps rise, due to the efficiency and competitiveness of water carriers in the U.S.

Even if the water carriers' share of coal shipments remains at present levels, the demand for barge services to move coal will grow by virtue of increases in coal utilization to fuel electric utilities and industrial consumers of energy, as well as for exports. NCA forecasts coal production to grow from 975 million tons in 1989 to 997 million tons in 1990, or nearly one billion tons, with 60 percent produced in the east and 40 percent in the west. That added volume will place additional demands on barge transportation, indicative of an estimated 2.6 percent growth for coal transportation demand from 1989 to 1990, following a similar 2.6 percent rise in demand from 1988 to 1989. For the long range, NCA forecasts coal production to reach 1.1 to 1.2 billion tons annually by the year 2000, an additional indication of the need to act now to relieve congestion at critical points on the waterways system through replacement of obsolete locks and dams. Mr. Chairman and members of the subcommittee, NCA therefore respectfully requests your consideration of the construction authorizations outlined in my testimony. Thank you for allowing me to appear.

Mr. **Nowak**. We will have our next witness, Jim Coyne, who's the executive director of the ICWP, the Interstate Conference on Water Policy.

TESTIMONY OF JIM COYNE, EXECUTIVE DIRECTOR, INTERSTATE CONFERENCE ON WATER POLICY

Mr. **Coyne**. Thank you very much, Mr. Chairman. I have a reasonably lengthy testimony here but given the hour of the day I'm sure you're interested in moving on to other items and to allowing other witnesses the opportunity to present their views. I'd just like to briefly summarize one or two points on my testimony and with your indulgence have the full testimony entered into the record.

Mr. **Nowak**. Without objection, so ordered.

Mr. **Coyne**. As I'm sure are aware, the Interstate Conference on Water Policy is very much involved in the Water Resources Development Acts of 1986 and 1988 and we're very pleased that the Congress has been working on a biennial schedule for water resource development legislation.

We are committed to working with both the Congress and the Corps of Engineers in maintaining such a schedule. The ICWP, of course, is an organization representing State governments, interstate agencies, and regional authorities that are dealing with water resource issues. My testimony deals with four issues relating to cost-sharing—feasibility study cost-sharing, planning starts sharing and reprogramming of funds, the cost-sharing associated with planning and engineering, and in addition, some issues relating to flood plain management services cost-sharing. These cost-sharing issues I think we've discussed quite adequately with the staff and I hope the comments we have outlined in the paper are self-evident.

I'd especially like to address the issue of the single owner policy because many of our State governments and our interstate agencies, are quite concerned about this issue as it relates to the forthcoming legislation.

As I'm sure you know, in 1936, Congress established a nationwide policy of flood control on navigable waters and their tributaries and determined that it was in the interest of the general public for the Federal Government through the corps to participate in flood control activities of these waters.

The Flood Control Act of 1936 states that there is a Federal interest in improvements for flood control purposes if the benefits to whomsoever they may accrue are in excess of the estimated costs. The Water Resources Development Act of 1986 did not change the Federal interest but did redefine cost-sharing of flood control and other water resource projects. This new cost-sharing significantly increased the non-Federal costs and States and local governments were to become partners in the water resource development process from the initiation of planning through the construction process.

The Corps of Engineers, however, has recently promulgated a regulation, E.R. 1165-2-123, which significantly changes the balance of Federal versus non-Federal interest in flood control and other projects. These changes modify when there is in the view of the Corps of Engineers a Federal interest in proposed water resource. This revised regulation would prohibit the Corps of Engineers from participating in flood control projects where there is a single owner who benefits, such as a waste water treatment plant, public and private schools, a public or private college, or a public highway.

This interpretation of where there is a Federal interest in flood control and other water resource projects is not consistent with our understanding of the Water Resource Development Act of 1986 or the historical role of the corps in water resource projects.

This new interpretation of Federal interest is also inconsistent with the disaster relief and emergency assistance amendments of 1988. In the case of a Presidential disaster declaration, Federal assistance is available for emergency protective measures to save lives, to protect public health and safety and to improve property and restore eligible facilities after a disaster.

Eligible facilities in this case include public facilities owned by a State or local government including public power, sewage treatment collection, water supply and distribution, airports, any non-Federally subsidized State road or highway and other public buildings, structures or systems including those for educational, recreational or cultural purposes.

Eligibility also extends to certain private non-profit facilities including educational, utility, emergency medical and custodial care facilities. We have obviously one case here where one Federal agency, the Corps of Engineers, is providing new interpretations of when there is a Federal interest in protection of publicly-owned property at the same time that another agency, FEMA, is issuing rules implementing Public Law 107-707 which says that there is a Federal interest in protecting the same types of facilities which the Corps of Engineers now excludes.

ICWP believes that property ownership, especially property ownership involving public interest property, should not be a test of whether a Federal interest exists in the protection of that property against flood or erosion damage. Publicly owned properties such as public power, sewage treatment and collection, water supply distribution facilities, airports, roads and highways and other public structures should be eligible for protection irrespective of the number of entities involved in ownership.

We propose two alternative examples of language for your consideration which would address this matter, we believe in the public interest. The first option would be to amend the Flood Control Act adding language that says this includes investigation, planning, design, construction of flood control projects to prevent damage to highways, bridge approaches, public works, churches, hospitals, schools, other non-profit public services. Protection of these and other facilities shall not be precluded because the ownership of the property to be protected resides in a single public or private non-profit entity.

The second option would be to amend the language in the 1990 Water Resources Development Act which is similar, where the proposed language would be:

> In determining the Federal interest and potential flood damage reduction and shoreline protection projects, the Secretary shall apply existing flood damage reduction and shoreline protection laws and authorities to preventing flooding and ero-

sion damages to endangered public works, public parks and non-profit private facilities which serve the general public without regard to the number of entities which own or operate the properties to be protected. The Secretary is directed to use recreation benefits to justify shore and hurricane protection projects as a basis for determining and recommending Federal interest in such projects.

This is obviously a somewhat verbose discussion of what we believe is a very important issue. There are many situations where there are single users but those single users are in fact public entities such as a city's wastewater treatment facility or a large university or a major highway user and clearly, although there is only one so-called entity as the beneficiary, the entire public benefits and we think that the single user rule should be amended to prevent exclusion in this situation.

Mr. Chairman, I'm grateful for the opportunity to come back as a former Member and present the concerns of many of the States, the interstate resource organizations, the regional organizations and we're very proud of the part we played in helping in 1986 and 1988 and look forward to working with you in this 1990 legislation.

Mr. NOWAK. Thank you very much. You were here in a—generally we're trying to be somewhat broaden in our outlook in this year's bill and hopefully we can move the corps along as we start to develop our bill.

One of the things that's going to happen, Jim, very shortly is the report—in fact, I guess tomorrow morning—the report by our Transportation Secretary where they're going to limit—and the five recommendations you made for cost-sharing to some degree broadens or at least looks at in kind contributions for non-Federal cost and so forth, sort of a broadening of the Federal initiative.

Whereas, I'm sure tomorrow, not in the water resource program directly but I think it's sort of the core program of the Administration that they're going to look for Federalization of Federal cost to States and to especially in the highway area, that they'll express narrowing of the scope especially when you look at the other—then the interstate system, they will talk about the FOS program and I'm sure the primary program and the secondary program as those responsibilities of the States which now this—I have had over the last couple of days some of the States call me and say, you know, we want a broadening program, not a narrowing program.

I think we to some degree have the same type of structure facing us as we move to draw up this bill. You can make all kinds of arguments about economic impacts and who derives those benefits, but we hope that you can play a role with your organization in conveying your thoughts both to the corps, who we play a role with and others in the Administration because as we get down to analyzing each of these projects in terms of what you're suggesting here, if we could adopt these recommendations, I think it would be a movement forward in our whole program but on the other side of that, you see the restrictions that are going to be talked about tomorrow in Transportation and I hope we don't have a water policy strategy following that.

Mr. COYNE. I appreciate your remarks. I guess the metaphor is that somebody is swimming in the opposite direction that the stream's going. We very much hope that those of you that you refer to that seem to be swimming in a different direction from what ICWP, might change their direction and come around because there's no doubt that the infrastructure improvements that are needed across this Nation are tremendously important and we have been willing partners—the States have with the Federal Government. We did not oppose the concept of creating a partnership but we don't want—that partnership means that we listen to both sides of the question.

Hopefully we won't find that that partnership means that the Federal Government defines the partnership by themselves, that we work together with the help of the Congress. ICWP is very willing to help the Members of Congress articulate the needs of the States, their Congressional districts. We look forward to working with you all and we certainly understand the pressures that Congress finds itself in today.

Mr. NOWAK. Thank you very much.

Mr. COYNE. Thank you.

Mr. NOWAK. Congressman Stangeland?

Mr. STANGELAND. Thank you, Mr. Chairman.

Thank you, Jim, and as the Chairman has said, we certainly want to work with you and continue the partnership of the Federal and State role in planning and some of the other concerns that you have. I think they're very beneficial as we look to the markup of a bill and make sure that we maintain the proper kind of policies that we've had in the past that have worked and not caused some disruption in that operation.

We'll work very closely with you.

Mr. COYNE. We've enjoyed working with you and your staff. Thank you very much, Mr. Congressman.

Mr. NOWAK. Thank you very much, Mr. Coyne.

[Mr. Coyne's prepared statement follows:]

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TESTIMONY OF
THE INTERSTATE CONFERENCE ON WATER POLICY

Before the
Subcommittee on Water Resources
House Public Works and Transportation Committee

Hearings on
1990 Water Resources Development Legislation

Presented by

James K. Coyne
Executive Director
Interstate Conference on Water Policy

Testimony of the
Interstate Conference on Water Policy
on
1990 Water Resources Development Legislation

The enactment of the Water Resources Development Acts of 1986 and 1988 has rejuvenated this nation's water resource development agenda and mandated new policy directions in many areas. In particular, cost-sharing reforms have given rise to a new partnership approach which has required adjustments in the way in which both federal and nonfederal interests approach water resource planning and project construction. It has also laid the foundation for a biennial schedule for water resources development legislation. ICWP is committed to working with both the Congress and the Corps of Engineers to maintain such a schedule, insuring that this country's water resource development program remains healthy and viable.

The Interstate Conference on Water Policy (ICWP) enthusiastically supported the passage of the 1986 Act and has worked closely with the Corps of Engineers as we jointly struggle with the challenges of our new partnership. As the independent national association of state, interstate, and regional water administrators, ICWP is committed to making the water resource policy reforms of the 1986 Act work. The experience of ICWP's members with implementing the new law over the past 3 years suggests that a few adjustments are necessary to enhance the reforms originally envisioned by Congress while preserving the framework of the partnership. ICWP has identified the following issues of concern and offers legislative language for inclusion in water resources development legislation this year:

Feasibility Study Cost-Sharing

Section 105(a)(1) of P.L. 99-662 specifies that the Secretary of the Army shall not initiate any feasibility study for a water resources project until nonfederal interests agree, by contract, to contribute 50 percent of the study cost during the period of the study. The Act further provides that not more than 50 percent of the nonfederal contribution can be made by the provision of services, materials, supplies, or other in-kind services. The limitation on the provision of in-kind services by nonfederal sponsors precludes the utilization of various services or data which may be necessary for the feasibility study. In many cases the nonfederal sponsor may be able to undertake components of the study more cost-effectively than the federal government. In such instances, the study process could be expedited or cost savings could be realized if the nonfederal sponsor is permitted to provide in-kind services in full satisfaction of the 50 percent nonfederal responsibility.

In addition, the Corps of Engineers has interpreted Section 105(a)(1) to require that the in-kind services occur during the period of the feasibility study after the contract is signed. This precludes the use of work done by the nonfederal sponsor, which may be essential and necessary for the feasibility study, but which was conducted during the reconnaissance phase. Much of this work for which nonfederal sponsors cannot currently get credit could expedite the feasibility study if done during the reconnaissance phase.

A specific example is aerial photographic work. Many states have the capability to perform these services. However, aerial photography needs to take place during certain seasons in order to be accurate and interpretable. Having this work conducted during the reconnaissance phase so that it will be available during the feasibility phase will help expedite the feasibility phase. However, without a provision that it can be counted as part of the nonfederal in-kind service contribution, there is no incentive for the nonfederal sponsor to proceed with this or other similar work.

ICWP believes that Section 105 of P.L. 99-662 should be modified to allow a credit for in-kind contributions by nonfederal interests to the full extent of the nonfederal 50 percent contribution. In addition, credit should be allowed for nonfederal in-kind contributions during project reconnaissance studies. Specifically, the amount of any in-kind contribution for a reconnaissance study, as approved by the District Engineer, would be credited against the 50 percent nonfederal share of the cost of the feasibility study. ICWP suggests amending Section 105(a)(1) of P.L. 99-662 as follows:

> The Secretary shall not initiate any feasibility study for a water resources project after the date of enactment of this Act until appropriate non-Federal interests agree, by contract, to contribute 50 percent of the cost for such study ~~during the period of such study~~. ~~Not more than one-half of~~ Such non-Federal contribution may be made by the provision of services, materials, supplies, or other in-kind services necessary to prepare the feasibility report. The non-Federal contribution may include services, materials, supplies, or other in-kind services furnished during the reconnaissance phase if that contribution is approved by the District Engineer. Non-Federal interests shall receive credits for such contribution made during the reconnaissance phase only if the feasibility phase is subsequently undertaken by the Secretary.

Planning Starts

Section 905(b) of P.L. 99-662 requires that prior to initiating any feasibility study under Section 905(a) of the act, the Secretary shall first perform, at federal expense, a reconnaissance study. The purpose of the reconnaissance study is to identify potential solutions to water problems in sufficient detail to enable the Secretary to determine if project planning should proceed to the feasibility study phase.

There may be instances wherein critical water resources problems arise, in which cases it would be desirable if the Secretary had the authority to reprogram available General Investigations funds, without prior Congressional approval, in order to initiate reconnaissance studies for such problems.

The present process for a new planning start is to have the study authorized by Congress through either full Congressional action or through a committee resolution. Under the present system, it takes approximately 18 months after a request for a study is received before the actual study work can proceed. This is true even if there is money that can be reprogrammed into the study and the study is a priority. The process requires (1) that the study be included in the President's budget as submitted to Congress and then (2) that it be included as a new study start in the Energy and Water Appropriations bill.

As a result of the reforms in P.L. 99-662, many steps are being made to reduce the historic time from study initiation to construction completion. These reforms were much needed, however, additional effort is necessary to provide for a more expedited process for new planning starts.

The study process could be significantly expedited if the Corps is authorized to reprogram funds for new study starts in critical problem areas such as those where a federal disaster has been recently declared. ICWP offers the following legislative language as an amendment to Section 905 of P.L. 99-662 to accomplish this needed reform:

> The Secretary is hereby authorized to reprogram available General Investigations funds to initiate reconnaissance studies of critical water resources problems at his discretion without prior Congressional approval if the following conditions exist:
>
> (a) The problem is of such a nature that it would be unwise to delay the reconnaissance study to await funding through the normal appropriations process.
>
> (b) A Congressional authority already exists under which the reconnaissance study can be completed.

(c) Prior to authorizing a reprogramming action, the Secretary notifies the House and Senate Appropriations Committees of his intention.

The Secretary's reprogramming authority is limited to $500,000 for any reconnaissance study. If additional funds are required to complete the reconnaissance study they will need to be provided through the normal process in subsequent fiscal years.

Planning and Engineering

Section 105(b) of P.L. 99-662 requires that non-federal interests contribute 50 percent of the cost of the planning and engineering authorized by that Act. It seems clear that this provision was intended to apply to projects such as those in Section 401(c) of P.L. 99-662 which were authorized in 1986 for preconstruction planning, engineering, and design only because those projects had no completed Corps of Engineers' feasibility report. Sections 105(a) and (c) lay out the normal cost-sharing provisions whereby non-federal interests contribute 50 percent of the cost of feasibility studies and share in the design costs in the same percentage as the purpose of the project.

Unfortunately, Section 105(b) has the potential for being misinterpreted. It is ICWP's view that non-federal sponsors should be required to contribute 50 percent of the costs of planning and engineering only when such a project did not follow the typical planning scenario whereby the nonfederal interests would have been required to contribute 50 percent of the costs of the feasibility study if it had been undertaken. To clarify what ICWP views as the original intent of Section 105(b) it is recommended that the following language be added as an amendment to Section 105(b) of P.L. 99-662:

> "The Secretary shall not initiate any planning or engineering authorized by this Act for a water resources project until appropriate non-Federal interests agree, by contract, to contribute 50 percent of the cost of the planning and engineering during the period of the planning and engineering. This subsection shall not apply to planning and engineering of projects for which the non-Federal interests contributed 50 percent of the cost of the feasibility study."

Single Owner Policy

In 1936 Congress established a nationwide policy of flood control on navigable waters or their tributaries and determined that it was in the interest of the general public for the federal government through the Corps of Engineers to participate in flood control activities on these waters. The Flood Control Act of 1936 states that there is a federal interest in improvements "for flood-control purposes if the benefits to whomsoever they may accrue are in excess of estimated costs, and if the lives and social security of people are otherwise adversely affected."

The Water Resources Development Act of 1986 did not change the federal interest but did redefine cost sharing of flood control and other water resource projects. This new cost sharing significantly increased the non-federal cost and states and local governments were to become "partners" in the water resource development process from the initiation of planning through the completion of construction.

The Corps of Engineers has recently promulgated a regulation (ER 1165-2-123) which significantly changes the balance of federal versus non-federal interest in flood control and other projects. These changes modify when there is, in the view of the Corps of Engineers, a federal interest in proposed water resource projects. This revised regulation would prohibit the Corps of Engineers from participating in flood control projects where there is a single owner who benefits such as public wastewater treatment plants, public and private schools, public and private colleges, and public highways. This interpretation of where there is a federal interest in flood control and other water resource projects is not consistent with our understanding of the Water Resource Development Act of 1986 or the historical role of the Corps of Engineers in water resource projects.

This new interpretation of federal interest is also inconsistent with the Disaster Relief and Emergency Assistance amendments of 1988 (P.L. 100-707). In the case of a Presidential disaster declaration, federal assistance is available for emergency protective measures to save lives, to protect public health and safety, to protect improved property, and to restore eligible facilities after a disaster.

Eligible facilities include public facilities owned by state or local government including public power, sewage treatment and collection, water supply and distribution, airports, any non-federally subsidized state road or highway, and other public buildings, structures or systems including those for educational, recreational or cultural purposes. Eligibility also extends to certain private, non-profit facilities including educational, utility, emergency medical or custodial care facilities, and similar facilities.

We have one federal agency, the Corps of Engineers, providing new interpretations of when there is a federal interest in protection of publicly owned property at the same time another agency, the Federal Emergency Management Agency, is issuing rules implementing P.L. 100-707 which say there is a federal interest in protecting the same type of facilities which the Corps of Engineers now excludes.

ICWP believes that property ownership should not be a test of whether a federal interest exists in the protection of that property against flood or erosion damages. Publicly-owned properties such as public power, sewage treatment and collection, water supply and distribution facilities, airports, roads and highways, or other public structures or systems should be eligible for protection irrespective of the number of entities involved in ownership. The following language is offered as a means of clarifying the federal interest:

Option 1

Amend Section 1 of the Flood Control Act of 1936 (33 USC 701a.) as follows—

> "It is hereby recognized that destructive floods upon the rivers of the United States, upsetting orderly processes and causing loss of life and property, including the erosion of lands, and impairing and obstructing navigation, highways, railroads, and other channels of commerce between the States, constitute a menace to national welfare; that it is the sense of Congress that flood control on navigable waters or their tributaries is a proper activity of the Federal Government in cooperation with States, their political subdivisions, and localities thereof; that investigations and improvements of rivers and other waterways, including watersheds thereof, for flood-control purposes are in the interest of the general welfare; that the Federal Government should improve or participate in the improvement of navigable waters or their tributaries, including watersheds thereof, for flood-control purposes if the benefits to whomsoever they may accrue are in excess of the estimated costs, and if the lives and social security of people are otherwise adversely affected." This includes the investigation, planning, design and construction of flood control works to prevent damage to highways, bridge approaches, and public works, churches, hospitals, schools and other non-profit public services. Protection of these or other facilities shall not be precluded because the ownership of the property to be protected resides in a single public or private non-profit entity.

Option 2

Include the following legislative language in the 1990 Water Resources Development Act:

> "In determining the Federal interest in potential flood damage reduction and shoreline protection projects, the Secretary shall apply existing Federal flood damage reduction and shoreline protection laws and authorities to preventing flooding and erosion damages to endangered public works, public parks, and non-profit private facilities which serve the general public without regard to the number of entities which own or operate the properties to be protected. The Secretary is directed to use recreation benefits to justify shore and hurricane protection projects and as a basis for determining and recommending federal interest in such projects."

Cost-Sharing for Section 22 and Flood Plain Management Services

The Administration, in its FY 1991 budget has again proposed cost-sharing of planning assistance to States (Section 22) and flood plain management services. Beginning in FY 1991, these services, which have traditionally been provided at 100 percent federal cost, will require non-federal matches on a graduated scale beginning at 10 percent and increasing to 50 percent by FY 1993.

ICWP is concerned about this proposal for a variety of reasons. Throughout its history, the Section 22 planning assistance program has yielded a wide variety of products that have been invaluable in supplementing the water resources management capability of the states.

To a large degree, many of these efforts are already being conducted on a partnership basis. State and/or local resources are frequently devoted to these studies or data acquisition efforts by providing in-kind services including staff support. In this way, Section 22 studies are not only already cost-shared, but they provide flexibility to respond to special needs. Requiring cost-sharing in the form of cash matches may very well destroy the utility of the program.

Congress recognized the value of the Section 22 planning assistance program when the authorized funding level for the program was raised from $4 million to $6 million in the Water Resources Development Act of 1986. The cost-sharing reforms of that Act were not applied to the Section 22 program. ICWP believes this was done for good reason and that cost-sharing principles should not now be extended to include Corps of Engineers technical services. Cost-sharing requires significant advance cooperative planning and scheduling of state fiscal resources. Requiring cost-sharing of Section 22 studies may thus eliminate the flexibility that is fundamental to this program. In the past, Section 22 authority has been used to respond to various emergency situations and special needs. These efforts can be and often are of a collaborative nature. However, cash match funding is simply inappropriate for these programs.

Secondly, most states utilize Section 22 planning assistance for reconnaissance level type studies. As provided in Section 905(b) of the Water Resources Development Act of 1986, reconnaissance level studies do not require nonfederal cost-sharing, but are conducted at full federal expense.

ICWP urges Congress to reject, as it has before, proposals to extend cost-sharing to the planning assistance and flood plain management services programs.

Mr. NOWAK. Our next and last witness is, I think, Daniel Natchez, who's the president of his own company which is a waterfront design consulting firm.

We want to welcome you before the subcommittee, Mr. Natchez.

GREENWICH HARBOR PROJECT, CONNECTICUT

TESTIMONY OF DANIEL NATCHEZ, DANIEL S. NATCHEZ AND ASSOCIATES, INC.

Mr. NATCHEZ. I thank you, Mr. Chairman, members of the committee. The hour is late. We have the prepared testimony that we would like entered into the record complete with the exhibits from the First Selectman of the Town of Greenwich and his letter to the committee. I just would read a couple of brief remarks, if I could.

Mr. NOWAK. All right. We will take all the formal material and insert it in the record and you may summarize as you so desire.

Mr. NATCHEZ. Unlike all your previous witnesses or most of your previous witnesses, we're not asking for money. We're not asking for any action of the committee that would involve the expenditure of money except for the printing of the bill.

What we are asking for is a very minor—a deauthorization of a small portion of the Federal project in the Greenwich Harbor. The specifics are in the maps and statistics that have been provided to you in the prepared testimony. Basically what we are trying to do is more efficiently use the waterway for the recreational boating purposes for which that Federal project was originally created.

The way it is constituted, part of that particular area is used both as a fairway and because of its logistics, restricts the ability of the more efficient usage of fixed structures for mooring of recreational boats. The Greenwich Boat and Yacht Club, some of the adjacent property owners and the Town of Greenwich have all united—which is also rare—in a single group to try to ask for deauthorization of a small portion of this which would actually allow for the more efficient and safer usage of the area.

There are no environmentally sensitive areas within this aspect of the project area. It is a very small portion and if you look at the maps that are associated with this request, you can see it's very insignificant to the total project but does not allow for efficient use of the mooring of recreational watercraft as presently constituted.

The subcommittee on previous occasions has looked favorably upon such local requests that have been structured to the specifics of the harbors for which they're in. We would respectfully request that the committee consider this request and also so enact it and/or include it in the Omnibus Water Resources Bill that you are now working on in order to be able to proceed and I'll be delighted to answer any questions or review any of the background that is involved in this request.

Mr. NOWAK. Have you discussed this with the corps in the district—the deauthorization of this? Do they have any objection?

Mr. NATCHEZ. Actually, this action was recommended by the Army Corps of Engineers. The Waltham district, it's the New England Division of the Corps, is the division that is responsible for the administration of this. They have determined, or they read their regulations maybe differently than some other regions of the corps or other areas of geography of the corps and they have interpreted that they may not entertain permits for these activities while the structures are encroaching upon a federally-designated project.

Therefore, they have recommended that if we wish to proceed with that activity, that we request that a small portion of the project area be deauthorized. That is different than other regions of the corps that believe that they have the authorization themselves to modify insignificant changes in the boundary lines of federally-authorized projects.

Mr. **Stangeland**. If the Chairman would yield briefly, did we not try or attempt to deauthorize this at the request of then-Congressman McKinney?

Mr. **Natchez**. Actually, you actually enacted something similar to this for Congressman McKinney.

Mr. **Stangeland**. Did it erroneously, somehow?

Mr. **Natchez**. This was in the Cost Cob Harbor in the Mianas River which is the next harbor over.

Mr. **Stangeland**. I see. Different harbor.

Mr. **Natchez**. You have a very good memory.

Mr. **Stangeland**. So it's a different project. My staff has an excellent memory.

Mr. **Natchez**. Yes. You actually did several—we also were instrumental in designing some of those. We are an environmental waterfront design company. We specialize in designing harbors and efficient uses of waterways balancing both private, public and environmental needs and resources. We believe that this particular request, very similar to the one you did I believe it was two years ago or four years ago, is very similar in nature.

In that case, we moved the Federal channel slightly over in one direction to be able to facilitate the maintaining of existing facilities that had been there for many years. This is something similar except that it allows for an expansion of the Town of Greenwich's marina through the Greenwich Boat and Yacht Club.

So, you're very correct. We would hope that you would act the same way on this one.

Mr. **Nowak**. Is the Greenwich Boat and Yacht Club a public entity or is it a private club?

Mr. **Natchez**. It is a public/private—well, that's a hard question for me to answer. It is a private club that is quasi public. Anybody in the Town of Greenwich can ask for membership in it. They have a lease from the Town of Greenwich which is Town of Greenwich's land. The Town of Greenwich owns the upland and the water rights thereto.

I guess a parallel would be that they are administering a part of the harbor under the Town of Greenwich's authorization, you know, area. That's probably the easiest way of doing it. There are two other neighboring property owners who have facilities that are in the water that actually got permits many years ago, some even probably before I would surmise my conception—we haven't been able to trace back when they originally got the corps permits.

It turns out that those permits may not be totally valid because the projects they authorized—or the structures they authorized are within the Federal project area. Because of the terrain and the rock ledge in that area, those structures cannot be moved and the corps is saying they can't renew the permits because they're within the Federal authorized anchorage area and therefore their best recommendation was for a deauthorization.

You might also understand that the deauthorization in effect has no adverse impact upon the mooring of boats anywhere within the Greenwich harbor. That area has been designated by the Town of Greenwich as a fairway and what it does do is in effect remove the Federal Government's liability for dredging that fairway.

So in effect, you may be saving yourselves some money.

Mr. NOWAK. Which would be unique.

Any other questions, Mr. Stangeland?

Mr. STANGELAND. I think not.

Mr. NOWAK. All right. We will review this and get the corps to comment on it and then if we have any further questions, we'll get back to you. We would welcome all other Members to bring in deauthorizations. If they don't affect that whole public purpose of the project itself.

Mr. NATCHEZ. It does not. There are no boats moored anywhere in that area that is requested to be deauthorized except those structures for the people who we are requesting it be deauthorized for.

Mr. NOWAK. Well, if we do—we will receive comments from the corps and then let you know. Thank you very much for appearing.

Mr. NATCHEZ. We appreciate your consideration.

[Mr. Natchez' prepared statement and material referred to follows:]

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Office of the President

COPY FOR YOUR
INFORMATION

March 2, 1990

The Honorable Henry Nowak
Chairman, and Members of the
Water Resources Subcommitee
House of Representatives
B-370A Rayburn House Office Building
Washington, DC 20515

RE: ***DE-AUTHORIZATION OF A PORTION OF THE FEDERAL PROJECT IN GREENWICH HARBOR***

Dear Chairman Nowak and Members of the Subcommittee:

My name is Daniel S. Natchez. I am President of DANIEL S. NATCHEZ and ASSOCIATES, Inc., a leading environmental waterfront design consulting firm specializing in the design of harbors, marinas, and recreationally oriented docking facilities.

We have been authorized and requested to speak on behalf of and represent the Town of Greenwich, et. al., including the Greenwich Boat and Yacht Club, and an adjacent property owner, requesting that legislation be passed enabling the de-authorization of a small portion of the Federal Project Area in the southwest side of Greenwich Harbor.

The basic plan envisions moving the Federal Project lines to allow for the de-authorization of approximately forty-seven thousand seven hundred thirty-seven square feet (47,737 sq. ft.) in the southwest area of the Federal Project. The proposed de-authorization of the Federal Project and the renderings of this plan, which are attached, will enable the Greenwich Boat and Yacht Club to pursue their desire to expand their present docking facilities, as well as to maintain two neighboring existing docking facilities, which have been in existence for many years and have never created any problems to navigation, mooring in the anchorage area, or the use of the waterways.

Congressman Christopher Shays has been most helpful and supportive in the Town of Greenwich's efforts in trying to obtain the de-authorization of this small portion of the Greenwich Harbor Federal Project. The change that is being requested will not only allow for the possible future expansion of the Greenwich Boat and Yacht Club for approximately 18 boats, but will also allow for maintaining existing docking facilities that have been in the Harbor for many years. In this manner, it is believed that the future development of Greenwich Harbor would allow for the most prudent, efficient and reasonable use. The attached maps and descriptions have been prepared by DANIEL S. NATCHEZ and ASSOCIATES, Inc. in conjunction with both S.E. Minor and Co. and Richard Spinelli (both licensed land surveyors). DSN&A has been working with the Town of Greenwich to fine tune the Town's request for several months.

The Town of Greenwich, et. al. respectfully requests that this proposal would allow the efficient and safe use of these portions of Greenwich Harbor and is environmentally sound without endangering any marsh grasses or other ecologically sensitive areas.

The Town of Greenwich, et. al. respectfully urges your subcommittee's inclusion of this proposal in the pending legislation, as well as its expeditious legislative adoption. I am also enclosing a letter from John Margenot, Jr., First Selectman of the Town of Greenwich, authorizing DSN&A to speak on his behalf, as well as a statement he has prepared for the record.

We would be happy to answer any questions anybody might have.

Sincerely,

DANIEL S. NATCHEZ and ASSOCIATES, Inc.

Daniel S. Natchez,
President

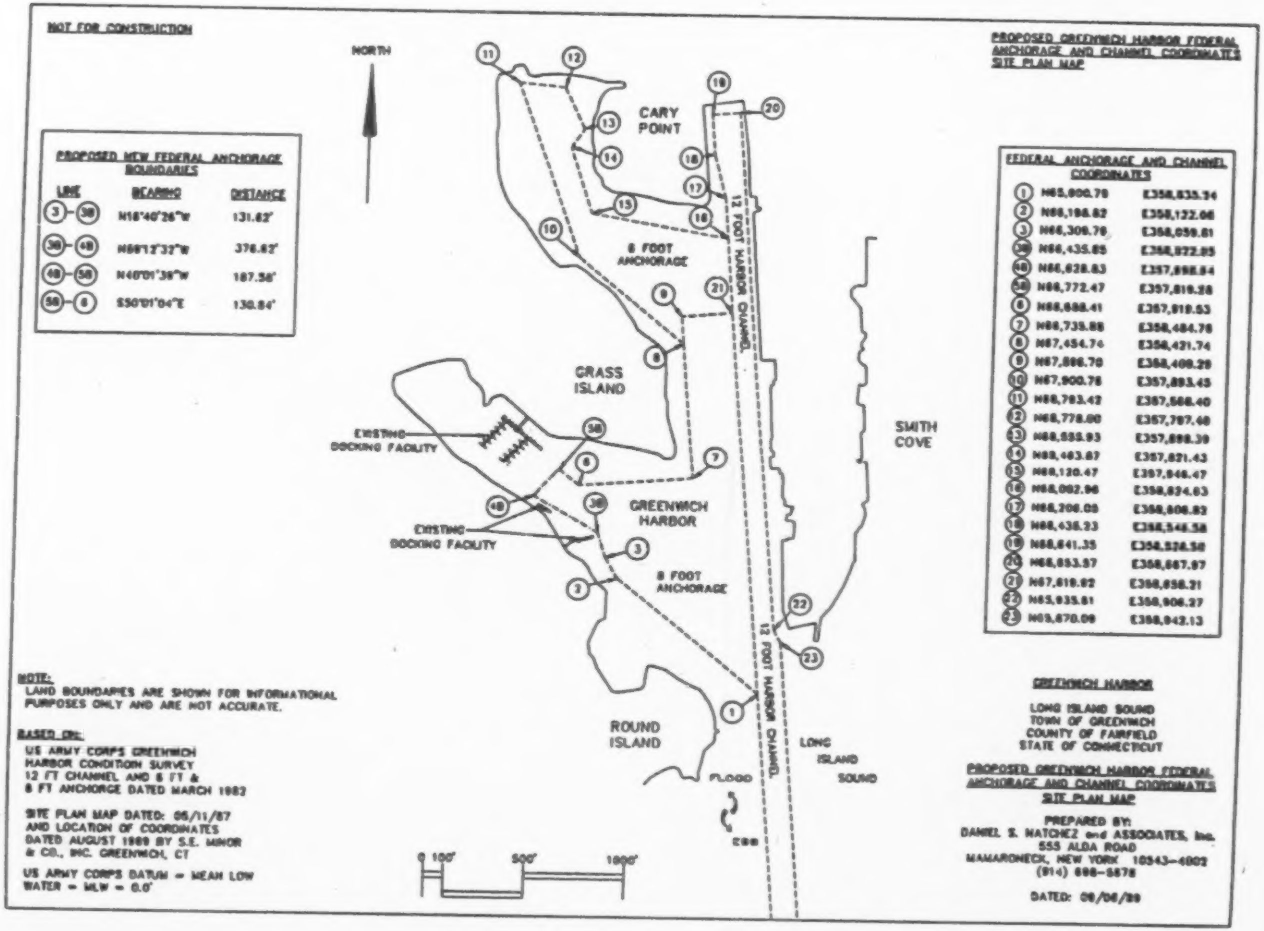
DSN/jat
Enclosures
cc: John Margenot, Jr., First Selectman, Town of Greenwich
Francis H. Keegan, Harbormaster and Director
Joseph Siciliano, Sup., Marine Facility Op., Dept. of Parks & Recreation
Commodore Thomas Anderson, Greenwich Boat and Yacht Club
Geoffrey Simmonds

DESCRIPTION OF FEDERAL ANCHORAGE AREA
PROPOSED TO BE DE-AUTHORIZED IN
GREENWICH HARBOR
GREENWICH, CONNECTICUT

Beginning at a point on the limit line of the Federal Anchorage Area in Greenwich Harbor, said point having coordinates of N66,309.76 E358,059.81 and running thence northwesterly along the limit line of the Federal Anchorage Area N50°01'04"W, a distance of 621.62 feet to an angle point on the existing Federal Anchorage Area Limit Line having coordinates N66,709.18 E357,583.50; thence continuing along the existing Federal Anchorage Area limit line N39°58'55"E a distance of 200.00 feet to an angle point on the existing Federal Anchorage Area Limit Line having coordinates N66,862.43 E357,712.01; thence continuing along the existing Federal Anchorage Area limit line S50°01'04"E a distance of 140.00 feet to a point on the existing Federal Anchorage Area Limit Line having coordinates N66,772.47 E357,819.28; thence running into the existing Federal Anchorage Area S39°58'55"W a distance of 187.56 feet to a point having coordinates N66,628.75 E357,698.76; thence running in the existing Federal Anchorage Area S59°10'32"E a distance 376.47 feet to a point having coordinates N66,435.85 E358,022.05; thence running in the existing Federal Anchorage Area S16°40'26"E a distance of 131.62 feet to the point and place of the beginning for a total area of 47,737 square feet.

Prepared By:

DANIEL S. NATCHEZ and ASSOCIATES, Inc., in conjunction with Richard Spinelli, licensed Land Surveyor and information from S. E. Minor & Co. and the Army Corps of Engineers.


NORTH
CARY POINT
8 FOOT ANCHORAGE
12 FOOT HARBOR CHANNEL
GRASS ISLAND
EXISTING DOCKING FACILITY
EXISTING DOCKING FACILITY
GREENWICH HARBOR
8 FOOT ANCHORAGE
SMITH COVE
ROUND ISLAND
FLOOD
EBB
LONG ISLAND SOUND
12 FOOT HARBOR CHANNEL
0 100' 500' 1000'
1
2
3
3B
4B
5B
6
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NOT FOR CONSTRUCTION

PROPOSED GREENWICH HARBOR FEDERAL ANCHORAGE AND CHANNEL COORDINATES SITE PLAN MAP

PROPOSED NEW FEDERAL ANCHORAGE BOUNDARIES

LINE	BEARING	DISTANCE
③-③B	N18°40'26"W	131.82'
③B-④B	N68°12'32"W	376.82'
④B-⑤B	N40°01'38"W	187.58'
⑤B-⑥	S50°01'04"E	130.84'

FEDERAL ANCHORAGE AND CHANNEL COORDINATES

①	N65,900.78	E358,835.34
②	N66,198.82	E358,122.06
③	N66,309.78	E358,059.81
③B	N66,435.85	E358,022.85
④B	N66,628.83	E357,898.84
⑤B	N66,772.47	E357,819.28
⑥	N66,688.41	E357,919.53
⑦	N66,735.88	E358,484.78
⑧	N67,454.74	E358,421.74
⑨	N67,886.70	E358,409.29
⑩	N67,900.78	E357,893.45
⑪	N68,793.42	E357,568.40
⑫	N68,778.00	E357,797.48
⑬	N68,555.93	E357,898.39
⑭	N68,463.87	E357,821.43
⑮	N68,120.47	E357,946.47
⑯	N68,002.96	E358,624.03
⑰	N68,206.05	E358,606.82
⑱	N68,436.23	E358,546.58
⑲	N68,641.35	E358,528.50
⑳	N68,653.57	E358,667.97
㉑	N67,619.82	E358,658.21
㉒	N65,935.81	E358,906.27
㉓	N65,870.09	E358,942.13

NOTE:
LAND BOUNDARIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT ACCURATE.

BASED ON:
US ARMY CORPS GREENWICH
HARBOR CONDITION SURVEY
12 FT CHANNEL AND 8 FT &
8 FT ANCHORGE DATED MARCH 1982

SITE PLAN MAP DATED: 06/11/87
AND LOCATION OF COORDINATES
DATED AUGUST 1989 BY S.E. MINOR
& CO., INC. GREENWICH, CT

US ARMY CORPS DATUM = MEAN LOW
WATER = MLW = 0.0'

GREENWICH HARBOR

LONG ISLAND SOUND
TOWN OF GREENWICH
COUNTY OF FAIRFIELD
STATE OF CONNECTICUT

PROPOSED GREENWICH HARBOR FEDERAL ANCHORAGE AND CHANNEL COORDINATES SITE PLAN MAP

PREPARED BY:
DANIEL S. NATCHEZ and ASSOCIATES, Inc.
555 ALDA ROAD
MAMARONECK, NEW YORK 10543-4002
(914) 698-5678

DATED: 09/06/89

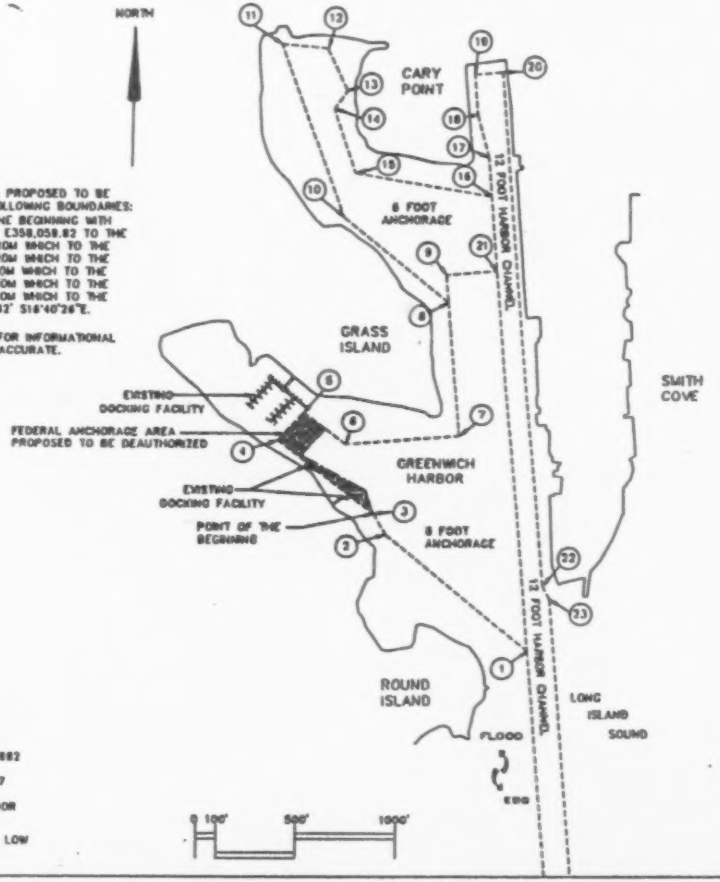
NOT FOR CONSTRUCTION

EXISTING GREENWICH HARBOR FEDERAL
ANCHORAGE AND CHANNEL COORDINATES
SITE PLAN MAP

NOTE:

THE FEDERAL ANCHORAGE AREA PROPOSED TO BE DEAUTHORIZED IS WITHIN THE FOLLOWING BOUNDARIES:
STARTING AT THE POINT OF THE BEGINNING WITH THE COORDINATES N66,309.76 E358,059.82 TO THE POINT 621.63' N50°01'04"W, FROM WHICH TO THE POINT 199.90' N39°58'02"E, FROM WHICH TO THE POINT 140.00' S50°01'04"E, FROM WHICH TO THE POINT 187.58' S40°01'39"W, FROM WHICH TO THE POINT 378.62' S38°10'32"E, FROM WHICH TO THE POINT OF THE BEGINNING 131.62' S18°40'26"E.

LAND BOUNDARIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT ACCURATE.


NORTH
CARY POINT
6 FOOT ANCHORAGE
GRASS ISLAND
EXISTING DOCKING FACILITY
FEDERAL ANCHORAGE AREA PROPOSED TO BE DEAUTHORIZED
GREENWICH HARBOR
EXISTING DOCKING FACILITY
POINT OF THE BEGINNING
8 FOOT ANCHORAGE
12 FOOT HARBOR CHANNEL
12 FOOT HARBOR CHANNEL
SMITH COVE
ROUND ISLAND
LONG ISLAND SOUND
FLOOD
EBB
0 100' 500' 1000'
1
2
3
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FEDERAL ANCHORAGE AND CHANNEL COORDINATES

①	N65,600.78	E358,835.34
②	N66,188.82	E358,122.08
③	N66,309.76	E358,059.81
④	N66,709.18	E357,583.50
⑤	N66,862.43	E357,712.01
⑥	N66,688.41	E357,919.53
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⑧	N67,454.74	E358,421.74
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⑪	N68,793.42	E357,568.40
⑫	N68,778.00	E357,797.40
⑬	N68,555.93	E357,898.36
⑭	N68,463.87	E357,821.43
⑮	N68,120.47	E357,946.47
⑯	N68,002.86	E358,624.63
⑰	N68,296.05	E358,606.82
⑱	N68,435.23	E358,546.58
⑲	N68,841.35	E358,528.50
⑳	N68,653.57	E358,667.07
㉑	N67,619.92	E358,858.21
㉒	N65,935.81	E358,906.37
㉓	N65,670.09	E358,942.13

GREENWICH HARBOR

LONG ISLAND SOUND
TOWN OF GREENWICH
COUNTY OF FAIRFIELD
STATE OF CONNECTICUT

EXISTING GREENWICH HARBOR FEDERAL
ANCHORAGE AND CHANNEL COORDINATES
SITE PLAN MAP

PREPARED BY:
DANIEL S. NATCHEZ and ASSOCIATES, Inc.
555 ALDA ROAD
MAMARONECK, NEW YORK 10543-4002
(914) 698-5678

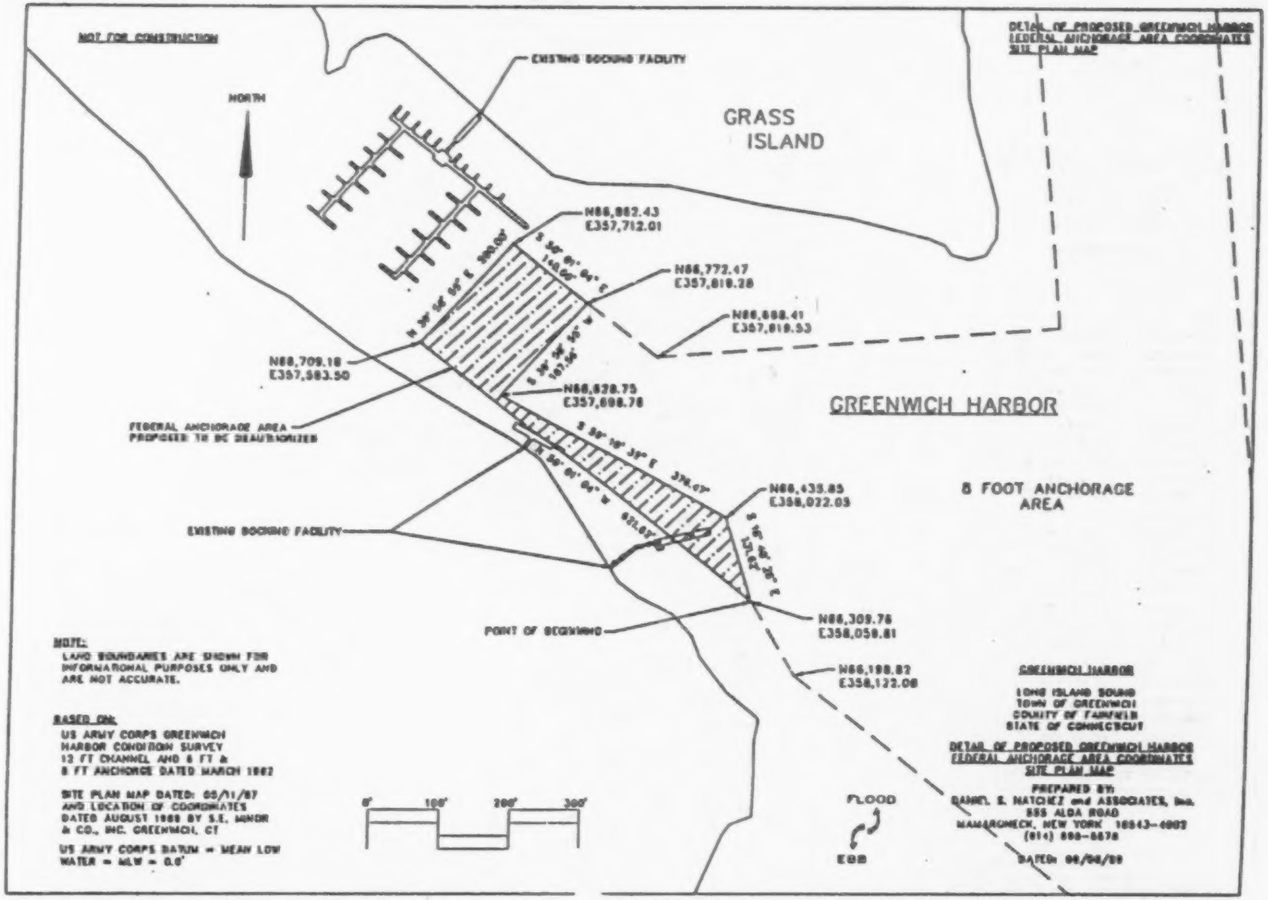
DATED: 08/06/89

BASED ON:

US ARMY CORPS GREENWICH
HARBOR CONDITION SURVEY
12 FT CHANNEL AND 6 FT &
8 FT ANCHORGE DATED MARCH 1982

SITE PLAN MAP DATED: 05/11/87
AND LOCATION OF COORDINATES
DATED AUGUST 1989 BY S.E. MINOR
& CO., INC. GREENWICH, CT

US ARMY CORPS DATUM = MEAN LOW
WATER = MLW = 0.0'


NOT FOR CONSTRUCTION
NORTH
EXISTING DOCKING FACILITY
GRASS ISLAND
GREENWICH HARBOR
8 FOOT ANCHORAGE AREA
N66,882.43 E357,712.01
N66,772.47 E357,819.28
N66,668.41 E357,819.53
N66,709.18 E357,583.50
N66,628.75 E357,698.78
N66,435.85 E358,022.03
N66,309.76 E358,050.81
N66,198.82 E358,122.08
S 50° 01' 04" E 140.00'
N 39° 58' 55" E 300.00'
S 39° 58' 55" W 107.56'
S 50° 16' 39" E 376.47'
N 50° 01' 04" W 621.07'
S 16° 46' 20" E 121.62'
FEDERAL ANCHORAGE AREA PROPOSED TO BE DEAUTHORIZED
EXISTING DOCKING FACILITY
POINT OF BEGINNING
0' 100' 200' 300'
FLOOD
EBB

DETAIL OF PROPOSED GREENWICH HARBOR
FEDERAL ANCHORAGE AREA COORDINATES
SITE PLAN MAP

NOTE:
LAND BOUNDARIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT ACCURATE.

BASED ON:
US ARMY CORPS GREENWICH
HARBOR CONDITION SURVEY
12 FT CHANNEL AND 6 FT &
8 FT ANCHORAGE DATED MARCH 1982

SITE PLAN MAP DATED: 05/11/87
AND LOCATION OF COORDINATES
DATED AUGUST 1988 BY S.E. MINOR
& CO., INC. GREENWICH, CT

US ARMY CORPS DATUM = MEAN LOW
WATER = MLW = 0.0'

GREENWICH HARBOR

LONG ISLAND SOUND
TOWN OF GREENWICH
COUNTY OF FAIRFIELD
STATE OF CONNECTICUT

DETAIL OF PROPOSED GREENWICH HARBOR
FEDERAL ANCHORAGE AREA COORDINATES
SITE PLAN MAP

PREPARED BY:
DANIEL S. NATCHEZ and ASSOCIATES, Inc.
555 ALDA ROAD
MAMARONECK, NEW YORK 10543-4002
(914) 698-5678

DATED: 09/06/89

COPY FOR YOUR INFORMATION

TOWN OF
GREENWICH
Office of First Selectman
Town Hall • 101 Field Point Road

John B. Margenot, Jr.
First Selectman

(203) 622-7710
Greenwich, CT 06836-2540

March 5, 1990

Daniel S. Natchez
President
DANIEL S. NATCHEZ and ASSOCIATES, Inc.
555 Alda Road
Mamaroneck, NY 10543

Re: DE-AUTHORIZATION OF PORTIONS OF THE FEDERAL PROJECT IN GREENWICH HARBOR

Dear Dan:

This letter will serve as your authorization to represent the Town of Greenwich in public testimony in Washington, D.C. during the first week in March, requesting the de-authorization of a small portion of the Federal Project area on the southwest side of Greenwich Harbor.

Also enclosed is a letter that we wish you to present on our behalf to the House of Representatives' Water Resources Subcommittee of the Public Works Committee, which is considering legislation on this matter.

We hope that this de-authorization can be expeditiously accomplished.

With warm regards,

Sincerely,

John B Margenot Jr.

John B. Margenot, Jr.
First Selectman

c

An Affirmative Action/Equal Opportunity Employer M/F/H

COPY FOR YOUR INFORMATION

TOWN OF GREENWICH

John B. Margenot, Jr.
First Selectman

Office of First Selectman
Town Hall • 101 Field Point Road

(203) 622-7710
Greenwich, CT 06836-2540

March 5, 1990

The Honorable Henry Nowak
Chairman and Members of the
Water Resources Subcommittee of the
House of Representatives Public Works Committee
B-370A Rayburn House Office Building
Washington, D.C. 20515

Re: DE-AUTHORIZATION OF A PORTION OF THE
FEDERAL PROJECT IN GREENWICH HARBOR

Dear Chairman Nowak and Members of the Subcommittee:

As Chief Executive Officer of the Town of Greenwich and on behalf of the Greenwich Boat and Yacht Club and two adjacent property owners, we respectfully request that your Subcommittee draft and recommend legislation to enable the de-authorization of a small portion of the Federal Project Area in the southwest side of Greenwich Harbor.

The basic plan envisions moving the Federal Project lines to allow for the de-authorization of approximately forty-seven thousand seven hundred thirty-seven square feet (47,737 sq. ft.) in the southwest area of the Federal Project. The proposed de-authorization of the Federal Project and the renderings of this plan, which are attached, will enable the Greenwich Boat and Yacht Club to pursue their desire to expand their present docking facilities, as well as to maintain two neighboring existing docking facilities, which have been in existence for many years and have never created any problems to navigation, mooring in the anchorage area, or the use of the waterways.

An Affirmative Action/Equal Opportunity Employer. M/F/H

Honorable Henry Nowak   March 5, 1990
Chairman

-2-

I wrote to Congressman Christopher Shays on January 10, 1989 and again on October 6, 1989 requesting this de-authorization of a small portion of the Greenwich Harbor Federal Project. The change is a well-thought-out approach that will allow for not only the expansion of the Greenwich Boat and Yacht Club for approximately 18 boats but also the maintenance of existing docking facilities that have been in the Harbor for many years. In this manner, we believe that the future development of the Greenwich Harbor will allow for the most prudent and reasonable use.

The attached maps and descriptions should serve as the technical basis of the desired legislation. Dan Natchez of DANIEL S. NATCHEZ and ASSOCIATES, Inc., has been working with this office to fine tune our request and is available, along with others from this office, to assist you and your Subcommittee in making this request a reality.

We look forward to working with you or anyone from your Subcommittee that you may designate on this project.

Sincerely,

John B. Margenot, Jr.
First Selectman

c

cc: Paul Audley, District Issues Coordinator (Bridgeport)
Patty McGovern, Legislative Assistant (Washington)
Commodore thomas Anderson, Greenwich Boat & Yacht Club
Paul B. Hicks, III, Selectman
Daniel S. Natchez, DANIEL S. NATCHEZ and ASSOCIATES
Francis H. Keegan, Habormaster and Director

DESCRIPTION OF FEDERAL ANCHORAGE AREA PROPOSED TO BE DE-AUTHORIZED IN GREENWICH HARBOR GREENWICH, CONNECTICUT

Beginning at a point on the limit line of the Federal Anchorage Area in Greenwich Harbor, said point having coordinates of N66,309.76 E358,059.81 and running thence northwesterly along the limit line of the Federal Anchorage Area N50°01'04"W, a distance of 621.62 feet to an angle point on the existing Federal Anchorage Area Limit Line having coordinates N66,709.18 E357,583.50; thence continuing along the existing Federal Anchorage Area limit line N39°58'55"E a distance of 200.00 feet to an angle point on the existing Federal Anchorage Area Limit Line having coordinates N66,862.43 E357,712.01; thence continuing along the existing Federal Anchorage Area limit line S50°01'04"E a distance of 140.00 feet to a point on the existing Federal Anchorage Area Limit Line having coordinates N66,772.47 E357,819.28; thence running into the existing Federal Anchorage Area S39°58'55"W a distance of 187.56 feet to a point having coordinates N66,628.75 E357,698.76; thence running in the existing Federal Anchorage Area S59°10'32"E a distance of 376.47 feet to a point having coordinates N66,435.85 E358,022.05; thence running in the existing Federal Anchorage Area S16°40'26"E a distance of 131.62 feet to the point and place of the beginning for a total area of 47,737 square feet.

Prepared By:

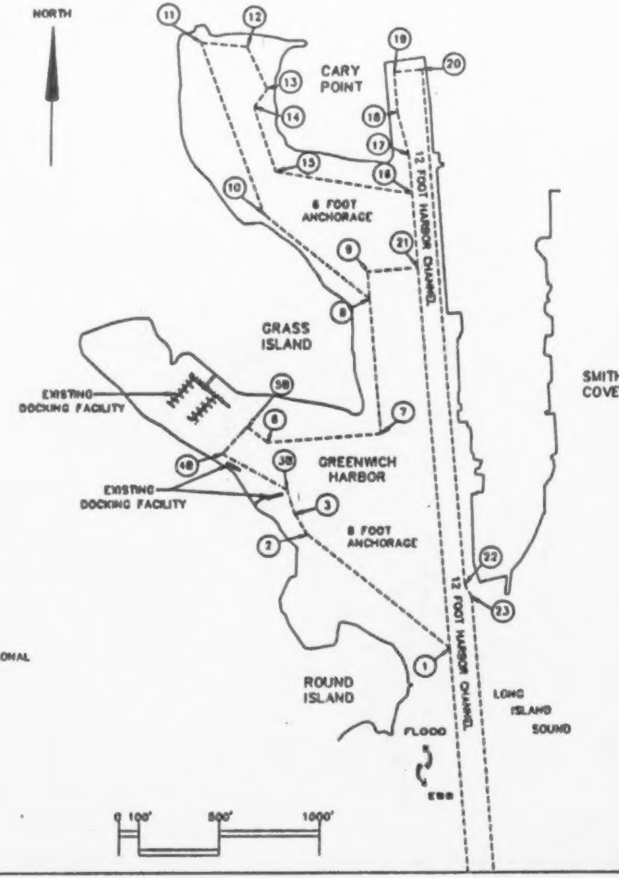
DANIEL S. NATCHEZ and ASSOCIATES, Inc., in conjunction with Richard Spinelli, licensed Land Surveyor and information from S. E. Minor & Co. and the Army Corps of Engineers.

NOT FOR CONSTRUCTION

PROPOSED GREENWICH HARBOR FEDERAL ANCHORAGE AND CHANNEL COORDINATES SITE PLAN MAP

PROPOSED NEW FEDERAL ANCHORAGE BOUNDARIES

LINE	BEARING	DISTANCE
③-(3B)	N18°40'26"W	131.62'
(3B)-(4B)	N58°12'32"W	378.82'
(4B)-(5B)	N40°01'39"W	187.58'
(5B)-⑥	S50°01'04"E	130.84'


NORTH
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CARY POINT
8 FOOT ANCHORAGE
12 FOOT HARBOR CHANNEL
⑩
⑨
⑧
GRASS ISLAND
(5B)
⑥
⑦
EXISTING DOCKING FACILITY
(4B)
(3B)
GREENWICH HARBOR
EXISTING DOCKING FACILITY
③
②
8 FOOT ANCHORAGE
㉒
㉓
SMITH COVE
①
ROUND ISLAND
LONG ISLAND SOUND
FLOOD
EBB
0 100' 500' 1000'

FEDERAL ANCHORAGE AND CHANNEL COORDINATES

①	N65,600.79	E358,835.24
②	N66,198.82	E358,122.08
③	N66,309.76	E358,059.81
(3B)	N66,435.85	E358,022.05
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⑪	N68,793.42	E357,858.40
⑫	N68,778.00	E357,767.40
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㉒	N65,935.61	E358,906.27
㉓	N65,870.09	E358,942.13

NOTE:
LAND BOUNDARIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT ACCURATE.

BASED ON:
US ARMY CORPS GREENWICH HARBOR CONDITION SURVEY 12 FT CHANNEL AND 6 FT & 8 FT ANCHORGE DATED MARCH 1982

SITE PLAN MAP DATED: 05/11/87 AND LOCATION OF COORDINATES DATED AUGUST 1989 BY S.E. MINOR & CO., INC. GREENWICH, CT

US ARMY CORPS DATUM = MEAN LOW WATER = MLW = 0.0'

GREENWICH HARBOR

LONG ISLAND SOUND
TOWN OF GREENWICH
COUNTY OF FAIRFIELD
STATE OF CONNECTICUT

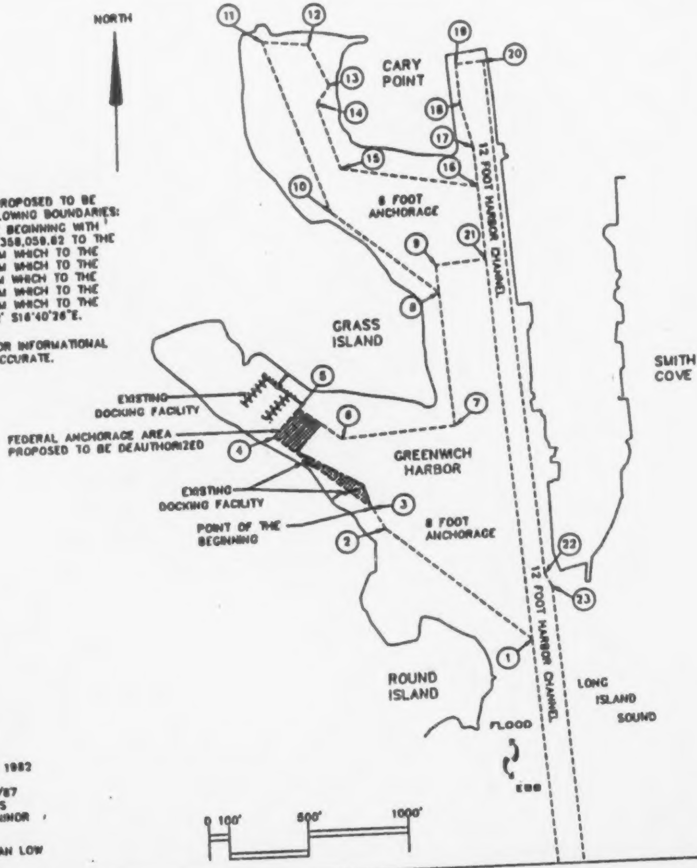
PROPOSED GREENWICH HARBOR FEDERAL ANCHORAGE AND CHANNEL COORDINATES SITE PLAN MAP

PREPARED BY:
DANIEL S. NATCHEZ and ASSOCIATES, Inc.
555 ALDA ROAD
MAMARONECK, NEW YORK 10543-4002
(914) 698-5678

DATED: 09/06/89

EXISTING GREENWICH HARBOR FEDERAL
ANCHORAGE AND CHANNEL COORDINATES
SITE PLAN MAP

NOT FOR CONSTRUCTION


NORTH
CARY POINT
GRASS ISLAND
GREENWICH HARBOR
ROUND ISLAND
SMITH COVE
LONG ISLAND SOUND
12 FOOT HARBOR CHANNEL
12 FOOT HARBOR CHANNEL
12 FOOT HARBOR CHANNEL
8 FOOT ANCHORAGE
8 FOOT ANCHORAGE
EXISTING DOCKING FACILITY
FEDERAL ANCHORAGE AREA PROPOSED TO BE DEAUTHORIZED
EXISTING DOCKING FACILITY
POINT OF THE BEGINNING
FLOOD
EBB
0 100' 500' 1000'
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NOTE:
THE FEDERAL ANCHORAGE AREA PROPOSED TO BE DEAUTHORIZED IS WITHIN THE FOLLOWING BOUNDARIES: STARTING AT THE POINT OF THE BEGINNING WITH THE COORDINATES N66,309.76 E358,058.82 TO THE POINT 621.63' N50°01'04"W, FROM WHICH TO THE POINT 199.99' N39°58'02"E, FROM WHICH TO THE POINT 140.00' S50°01'04"E, FROM WHICH TO THE POINT 167.58' S40°01'38"W, FROM WHICH TO THE POINT 376.62' S59°10'32"E, FROM WHICH TO THE POINT OF THE BEGINNING 131.62' S16°40'26"E.

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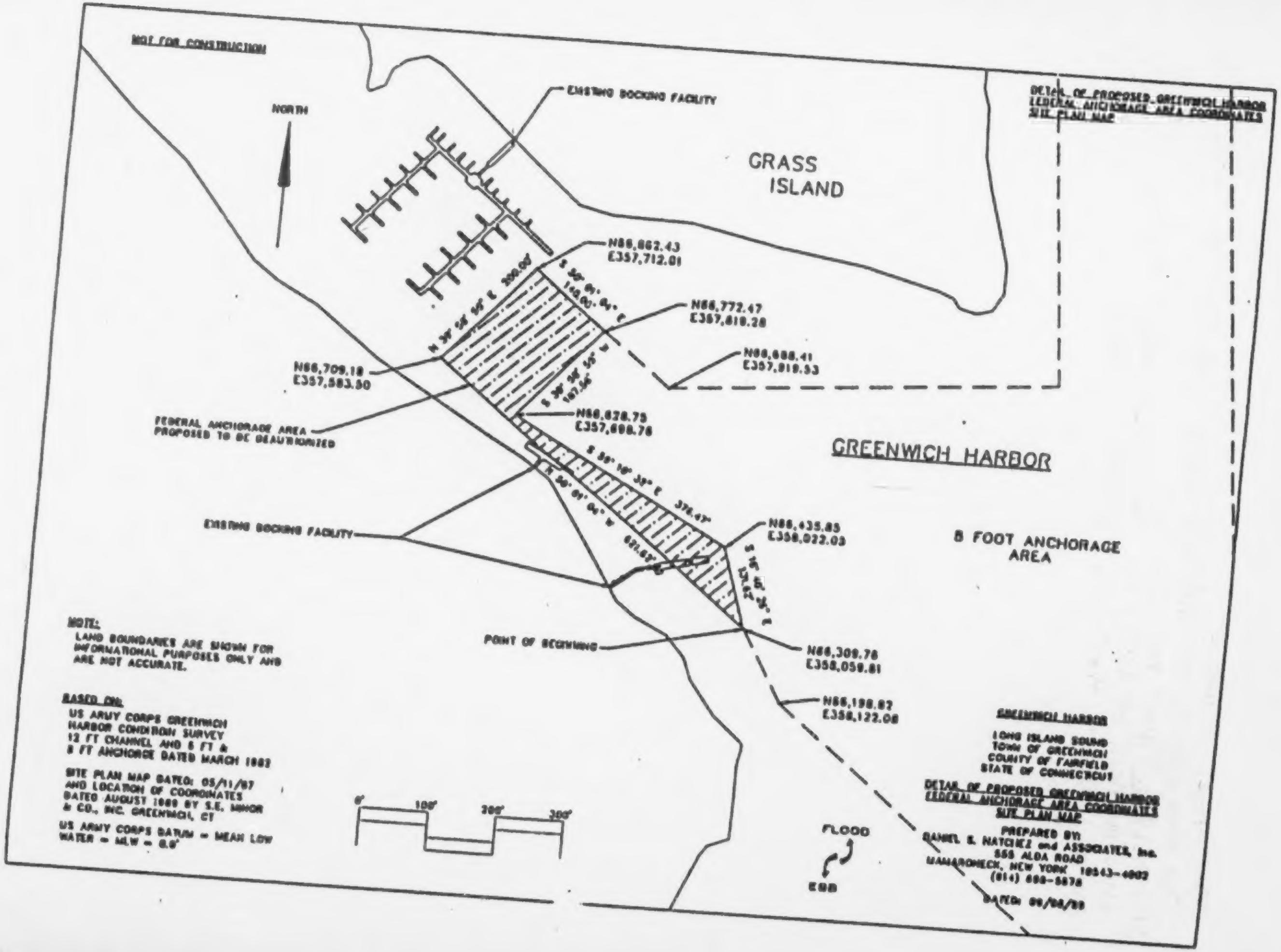
GREENWICH HARBOR

LONG ISLAND SOUND
TOWN OF GREENWICH
COUNTY OF FAIRFIELD
STATE OF CONNECTICUT

EXISTING GREENWICH HARBOR FEDERAL
ANCHORAGE AND CHANNEL COORDINATES
SITE PLAN MAP

PREPARED BY:
DANIEL S. NATCHEZ and ASSOCIATES, Inc.
555 ALDA ROAD
MAMARONECK, NEW YORK 10543-4007
(914) 698-5678

DATED: 09/06/89


NOT FOR CONSTRUCTION
NORTH
EXISTING DOCKING FACILITY
GRASS ISLAND
DETAIL OF PROPOSED GREENWICH HARBOR FEDERAL ANCHORAGE AREA COORDINATES SITE PLAN MAP
N66,862.43 E357,712.01
N 39° 58' 56" E 200.00'
S 50° 01' 04" E 140.00'
N66,772.47 E357,818.28
N66,688.41 E357,819.53
S 39° 58' 56" W 187.56'
N66,709.18 E357,583.50
FEDERAL ANCHORAGE AREA PROPOSED TO BE DEAUTHORIZED
N66,628.75 E357,698.76
GREENWICH HARBOR
S 50° 16' 39" E 376.47'
N 50° 01' 04" W 621.67'
EXISTING DOCKING FACILITY
N66,435.85 E358,022.03
S 16° 46' 35" E 121.62'
8 FOOT ANCHORAGE AREA
POINT OF BEGINNING
N66,309.78 E358,059.81
N66,198.82 E358,122.08
NOTE:
LAND BOUNDARIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT ACCURATE.
BASED ON:
US ARMY CORPS GREENWICH HARBOR CONDITION SURVEY 12 FT CHANNEL AND 6 FT & 8 FT ANCHORGE DATED MARCH 1982
SITE PLAN MAP DATED: 05/11/87 AND LOCATION OF COORDINATES DATED AUGUST 1989 BY S.E. MINOR & CO., INC. GREENWICH, CT
US ARMY CORPS DATUM = MEAN LOW WATER = MLW = 0.0'
0'
100'
200'
300'
FLOOD
EBB
GREENWICH HARBOR
LONG ISLAND SOUND
TOWN OF GREENWICH
COUNTY OF FAIRFIELD
STATE OF CONNECTICUT
DETAIL OF PROPOSED GREENWICH HARBOR FEDERAL ANCHORAGE AREA COORDINATES SITE PLAN MAP
PREPARED BY:
DANIEL S. NATCHEZ and ASSOCIATES, Inc.
555 ALDA ROAD
MAMARONECK, NEW YORK 10543-4002
(914) 698-5878
DATED: 09/08/89

Mr. **Nowak**. Thank you.

The subcommittee stands adjourned until 1:00 p.m., Wednesday, March 14th. Thank you.

[Whereupon, at 4:25 p.m., the subcommittee recessed to reconvene at 1:00 p.m., Wednesday, March 14, 1990.]

PROPOSED AUTHORIZATIONS FOR THE WATER RESOURCES DEVELOPMENT PROGRAM OF THE U.S. ARMY CORPS OF ENGINEERS

WEDNESDAY, MARCH 14, 1990

House of Representatives,
Subcommittee on Water Resources,
Committee on Public Works and Transportation,
Washington, DC.

The subcommittee met, pursuant to notice, at 1:00 p.m. in Room B370A, Rayburn House Office Building, Hon. Henry J. Nowak (chairman of the subcommittee) presiding.

Mr. Nowak. The subcommittee will come to order.

We have a long agenda today and many guests that we had not anticipated. What I would like to do is make a brief opening statement, and then we'll discuss the agenda after that.

This afternoon's Subcommittee on Water Resources meets to continue to receive testimony concerning proposed project authorizations for the Civil Works Program of the U.S. Corps of Engineers.

This hearing continues the subcommittee's efforts of developing a biannual authorization bill for water resource development programs of the Corps of Engineers.

At today's hearing, we will receive testimony from members of Congress and other individuals. It is the intent of the subcommittee to develop a Water Resource Development Act for 1990 and to have it enacted into law later this year.

Before I begin testimony, I yield to my distinguished colleague from Minnesota, the ranking Republican member of the subcommittee, Arlan Stangeland, for whatever opening remarks he wishes to make.

Mr. Stangeland. Thank you, Mr. Chairman.

I have a statement I'd like to have made part of the record, and I'll be very brief, because we do have a long list of witnesses today to testify, and a number of our colleagues.

Just let me say that I want to welcome from Minnesota Henry Hanka, of the Great Lakes Commission, who will testify about the importance of a second full size lock at Sault Ste. Marie and also welcome back here to the committee a long time friend and our former staff director for the minority, Mike Toohey.

Mike and I and this committee have worked long and hard on water projects, and we welcome Mike now to sit at the other side of the table.

With that, Mr. Chairman, I would yield back my time.

[Mr. Stangeland's prepared statement follows:]

STATEMENT OF HONORABLE ARLAN STANGELAND
WATER RESOURCES DEVELOPMENT (CORPS)
WATER RESOURCES SUBCOMMITTEE
March 14, 1990

THANK YOU, MR. CHAIRMAN. TODAY, THE SUBCOMMITTEE CONTINUES ITS HEARINGS ON CORPS OF ENGINEERS' PROJECTS AND PROGRAMS. FROM THESE HEARINGS, WE'LL BE ABLE TO BEGIN DEVELOPING AN OMNIBUS WATER RESOURCES BILL WHICH WE WOULD HOPE TO HAVE ENACTED BEFORE THE END OF THE YEAR.

SO FAR, WE'VE HEARD A LOT ABOUT THE ADMINISTRATION'S PROJECTS, ENVIRONMENTAL AND TECHNOLOGICAL INITIATIVES SUCH AS "MAGLEV" (MAGNETIC LEVITATION) TRANSPORTATION, THE SO-CALLED "SINGLE BENEFICIARY" PORT DEVELOPMENT POLICY, AND VARIOUS SITE-SPECIFIC WATER RESOURCES NEEDS THROUGHOUT THE COUNTRY.

TODAY, WE PLAN TO FOCUS ON ADDITIONAL SITE SPECIFIC PROJECTS AND PROBLEMS. ONE AREA IN PARTICULAR IS THE GREAT LAKES NAVIGATION SYSTEM, INCLUDING ITS CONNECTING CHANNELS AND AUTHORIZED PORTS AND LOCKS. GEORGE RYAN OF THE LAKE CARRIERS ASSOCIATION, LARRY KARNES OF THE MICHIGAN DEPARTMENT OF TRANSPORTATION, AND HENRY HANKA OF THE GREAT LAKES COMMISSION WILL TESTIFY ABOUT THE CRITICAL IMPORTANCE OF A SECOND, POE-SIZED LOCK AT SAULT SAINTE MARIE, MICHIGAN AND THE ARGUMENTS FOR FULL FEDERAL FUNDING OF THE PROJECT.

I CERTAINLY RECOGNIZE THE CURRENT PROBLEM IN MEETING THE 1986 ACT'S COST-SHARING REQUIREMENTS AND IN FINDING A LOCAL SPONSOR. SOMETIMES A PROJECT, SUCH AS ONE ON THE INLAND NAVIGATION SYSTEM, HAS SO MANY BENEFICIARIES IT MAKES LITTLE SENSE TO SADDLE ONE ENTITY WITH THE COSTS. OTHER TIMES A PROJECT MAY BE SO UNIQUE OR PROVIDE NATIONAL BENEFITS TO SUCH AN EXTENT THAT NORMAL COST-SHARING RULES SHOULDN'T APPLY. THE SOO LOCKS, AS WELL AS THE GREAT LAKES CONNECTING CHANNELS, MAY BE SUCH A CASE. AT ANY RATE, I'M CERTAINLY WILLING TO REVISIT THE COST-SHARING ISSUE.

FINALLY, MR. CHAIRMAN, LET ME WELCOME BACK TO THE COMMITTEE A LONG-TIME FRIEND AND FORMER STAFF DIRECTOR FOR THE MINORITY, MIKE TOOHEY. THE TWO OF US ALSO WORKED CLOSELY TOGETHER ON PREVIOUS CORPS OF ENGINEERS' BILLS WHEN MIKE WAS THE MINORITY STAFF MEMBER FOR THE WATER RESOURCES SUBCOMMITTEE. I LOOK FORWARD TO RECEIVING HIS TESTIMONY AND THAT OF OUR OTHER COLLEAGUES AND FRIENDS.

THANK YOU, MR. CHAIRMAN.

Mr. Nowak. Let me try to set the agenda up. We have several members from New Jersey and also citizens from New Jersey that are scheduled to testify. What I will do is we have a series of members that will testify and a couple of others that have traveled long distances also to testify and have early planes at 2:00 or 3:00, and we would hope to have those testify in brief order, and then return to the schedule with the members from New Jersey, Robert Torricelli and Mr. Gallo and Mr. Pallone and, certainly, our own Mr. Roe, who will be a panel member with us at this point in time.

To make it a little more convenient, all of the Passaic member people then would not be scheduled until we try to clear off some of the other immediate problems we have, and then we could take the members and then all of the other interests together and keep it in one grouping instead of separating the members from the testimony of the interested citizens groups.

So anyone here on the Passaic project people, we will be discussing other projects for approximately an hour to an hour and a half, and if you want to get more comfortable in another sitting room, then perhaps one of the staff members could find one down the hall so that they would not have to stand for a couple of hours here before we get to the substance of the Passaic River Project.

So with that announcement, you may either stand, sit, or perhaps we'll have a room. One of the staff members, could you see if one of the adjoining rooms are vacant and there are some chairs there so that they could sit and perhaps review their testimony while we take other testimony from around the country?

We would hope to be finished with the members of Congress and the other interests within an hour and a half, Bob, and then we would bring back en masse everybody from New Jersey.

Ms. Filippone. Are our Congressmen going to speak now or later?

Mr. Nowak. What I would like to do is bring them on later.

Ms. Filippone. All right. Thank you.

Mr. Nowak. That's the agenda we'll follow then, and we have an Ohio River locks and dam interest here, and we're going to bring up similar interest companies and representatives, and I would like to invite to the witness table before we even begin our member testimony, Michael Toohey, Senior Washington Representative from Ashland Oil; Marc Gabor, who is a National Legislative Representative for the United Mine Workers; Bill Hahne, Manager, Traffic, Raw Material, U.S.X. Corporation; and Barry Palmer, Executive Director of Dinamo.

If you can work your way to the table, we'd be happy to receive your testimony.

Michael, you have your other witnesses here?

Mr. Toohey. They're standing outside the door. I don't think they heard you, Mr. Chairman.

Mr. Nowak. Well, I can't yell any louder.

Mr. Roe just informed me that we would like to try to meet at a time certain with the New Jersey Passaic group, and if we could make a time certain, he suggested 3:00, and we're going to try to get a bigger room, either the Public Works room if the Aviation Subcommittee has concluded their hearings, or Mr. Roe is graciously going to seek another room in his Science and Technology Committee, and that will be announced as soon as we can make those arrangements.

We will ask also the members to return at 3:00. Mr. Torricelli, is that satisfactory?

Mr. **Torricelli**. Yes, thank you, Mr. Chairman.

Mr. **Nowak**. We'll set yours up at 3:00, and we can then bring you all together instead of separating everybody apart.

We don't have the room number yet; we're going to try to clear one of the other larger rooms, either room 2167 or Mr. Roe's Science and Technology room.

We'll announce that, hopefully, in about 15 minutes to a half hour.

Mr. **Roe**. Why don't we set it for 2:30?

Mr. **Nowak**. All right, 2:30.

Mr. **Roe**. Check here in this room, because we may have to go with this room because we can't get one of the other two, but if one of the two bigger rooms are open, we would tell everybody here and take you to those rooms.

Mr. **Nowak**. Let's give everybody a chance to move out, and then we will begin the testimony and try to get back on schedule.

Mr. Palmer, if you would like to begin your testimony, and then we'll follow with the other testimony, and then, as a group, ask any questions.

OHIO RIVER, LOCK & DAM INFRASTRUCTURE

TESTIMONY OF BARRY PALMER, EXECUTIVE DIRECTOR OF DINAMO; MICHAEL TOOHEY, SENIOR WASHINGTON REPRESENTATIVE FOR ASHLAND OIL, INC.; WILLIAM HAHNE, MANAGER, TRAFFIC, RAW MATERIALS, U.S.S., A DIVISION OF U.S.X. CORP.; AND MARC GABOR, NATIONAL LEGISLATIVE REPRESENTATIVE FOR THE UNITED MINE WORKERS OF AMERICA

Mr. **Palmer**. Thank you, Mr. Chairman.

I'm Barry Palmer, Executive Director of Dinamo, the association for the development of inland navigation in America's Ohio Valley.

Dinamo is a coalition of State Government, private sector, and labor leaders in the Ohio Valley with the singular purpose of working with the Corps of Engineers to expedite the modernization of the lock and dam infrastructure on the Ohio River and its navigable tributaries.

I have with us this afternoon Mr. Michael Toohey, Senior Washington Representative for Ashland Oil, Incorporated; Mr. William Hahne, who is the Manager, Traffic, Raw Materials, for U.S.S., United States Steel, a division of U.S.X. Corporation; and Mr. Marc Gabor, Legislative Representative for the United Mine Workers.

They represent interests that are very much a part of our organization and our coalition.

I'm here this afternoon in presentation of testimony supporting Congressional authorization, subject to a final report of the Chief of Engineers, for a new 110 foot by 1,200 foot lock at the McAlpine Lock and Dam near Indiana/Kentucky, Ohio River; improvements at Monongahela River Locks and Dams 2, 3, and 4, in Pennsylvania, near Pittsburgh; and for a new lock at the Marmet Lock and Dam on the Kanawha River in West Virginia.

We're fully cognizant, Mr. Chairman, that the Corps of Engineers has not yet processed the final reports to the Chief of Engineers with respect to these five projects.

However, the case for expeditious Congressional action on these projects is fully warranted. We're urging expeditious modernization of the McAlpine River Lock and Dam, Ohio River, principally, replacement of the present 600 foot auxiliary lock chamber with a new 110 foot by 1,200 foot lock which will result in twin 1,200 foot locks at the project.

We support construction of the new 1,200 foot lock for the following reasons, but, principally, because the present and future traffic demands dictate construction of an additional lock at that site.

The Corps of Engineer now has the Louisville District report, it's been approved by the division, and it's now at the Corps of Engineers for Rivers, and we expect sometime this summer that that final report will be complete.

The improvements in the Monongahela River Locks and Dams 2, 3, and 4, which are, again, in a pool near Pittsburgh, Pennsylvania, will go up to Brownsville.

We're talking about 70 miles of river there, and the problem at Dam 2 and the problem at Lock and Dam 3 is a very scary problem for those of us who are aware of the condition of those facilities.

Those locks and dams are 85 years old, and the Corps of Engineers, in their preliminary analysis, indicate that they're not certain whether that lock is going to slide, tip or crumble into the river.

So we've got a very, very serious problem, much more serious than we realized even a year ago. So they'll be completing a preliminary draft report, which is expected to be out by early May of this year, and I think a final report of the Chief of Engineers by next spring.

The concern is that we can't wait for another cycle to get this project authorized. We're also supporting construction of a new lock at the Marmet Lock and Dam in West Virginia.

I'd like to ask Mr. Mike Toohey, Senior Washington Representative from Ashland Oil, if he might make a few comments at this time, also.

Mike.

Mr. TOOHEY. Thank you, Barry.

Mr. Chairman, Mr. Stangeland, members of the panel, thank you for the opportunity to be here today. It's like coming home.

As you know, Ashland Oil is a diversified energy corporation with interests in petroleum refining, transportation, in coal, we own interests in Arch Mineral and in Ashland Coal, and we're the largest operator of tank barges on the inland waterway system, and our corporation exists today only because of the development of the inland waterway system.

Nearly three years ago, some of you may recall that the committee went to Louisville, Kentucky, for the dedication of the Gene Snyder Customs House and Court House, and following that ceremony, we boarded the M.V. *Ashland* and actually locked through McAlpine Dam.

So those that were there that day know firsthand how dangerous this segment of the waterway is. It is the most difficult section of the Ohio River to navigate, and the McAlpine Project is vitally needed.

We strongly support an authorization for this project for the new lock and would hope that the committee would favorably consider this request.

I clearly recognize that the Chief of Engineers has not finished his work on this project, but we expect it to be done this summer.

If the committee were to act and not include this project, we would lose two years of valuable time to move forward on this project.

I also recognize that if the Administration says that they have to have a final chief's report in order to have a signable bill, I would urge you to drop this provision from the bill.

I would not want the committee to jeopardize this legislation, but these projects are very important, and we urge your favorable consideration of their inclusion in the legislation.

I'll just state for the record that we do pay 50 percent of the costs of this project, so it's not as big a drain on the Federal budget as other initiatives would be.

Thank you, Mr. Chairman and members of the committee.

Mr. Palmer. Mr. Hahne.

Mr. Hahne. Mr. Chairman, Mr. Stangeland, members of the panel, I appreciate the opportunity to present my views on the subject matter today.

I am William Hahne, I am Manager, Traffic, Raw Materials, for U.S.S., a division of U.S.X. I have the responsibility for arranging the transportation for all of the raw materials, that is, coal, coke, iron, ore and limestone, for the steel making facilities of U.S.S.

I'm here today to urge conditional authorization, subject to the final report of the Chief of Engineers, of improvements to the Locks and Dams 2, 3, and 4 on the Monongahela River.

The Ohio and the Monongahela Rivers are particularly important to U.S.S., and I have attached a presentation which describes the importance of these rivers to our steel making operations.

U.S.S. Clairton Works, located at Mile Point 19 on the Monongahela, with its access to lower cost river transportation, has prevailed as the primary coke producer for U.S.S. and U.S.S. Kobe iron making facilities.

These are located in Fairfield, Alabama; Gary, Indiana; Loraine, Ohio; Pittsburgh, Pennsylvania; and Fairless Hills, which is near Philadelphia, Pennsylvania.

Clairton processes approximately 6.2 million tons of metallurgical coal each year, which, in effect, produces 4.6 million tons of coke, one of the most important ingredients in the whole process of iron making, and, as I indicated before, even though Clairton Works coke facilities are located in Pittsburgh, not only is Pittsburgh involved in this thing, but, again, our iron-making facilities in four other locations in the country.

Clairton Works has recently in the past several years invested $30 million in our coke facilities for modernization and increasing its capacity.

There is no other practical method of handling the 6.2 million tons of coal at Clairton Works, other than river. It was built to receive and handle the coal by river.

Increased costs associated with any alternative method of delivering this coal to Clairton Works would undoubtedly cause or force U.S. Steel to obtain its coke from offshore sources.

I have recently reviewed with the Corps of Engineer on several occasions the condition of Lock and Dams 2, 3, and 4, and I am convinced, as they are, that this conditional authorization is indeed necessary to begin the much needed work, and as soon as possible.

Thank you, gentlemen.

Mr. PALMER. Mr. Gabor.

Mr. GABOR. Mr. Chairman, members of the committee, thank you for the opportunity to be here this afternoon.

My name is Marc Gabor, I'm the National Legislative Representative for the United Mine Workers of America. On behalf of the 250,000 members of our union who are involved in mining not only steam coal, but metallurgical coal, I want to thank you for holding these hearings today to address not only one of our Nation's most pressing needs, but what is literally the lifeline of the coal industry countries in the navigation system.

A viable system is key to continued employment in the coal fields of Appalachia and the Midwest, as well as for the domestic and international coal markets.

I cannot stress strongly enough the importance of the locks and dams in the Ohio River Valley to the continued vibrancy of the Nation's coal mine operations.

A clear indication of our commitment and the significance to which we attach the need to modernize these structures is that our president, Rich Trumka, is pleased to serve as a member of the Board of Directors of Dinamo.

As you well know, the sole reason for Dinamo's existence is to work with you, members of the committee, and other decision makers at all levels of Government to help make these needed capital improvements a reality.

This represents a clear example of labor and management working together. Specifically, today the UMW wants to lend its full support for the recommendations made in the Dinamo testimony to authorize modernization at McAlpine Locks 2, 3, and 4 on the Monongahela and the Marmet Lock on the Kanawha.

I would like to draw the committee's attention to the broad bipartisan support for these projects shown by your colleagues last week and this week.

Their participation underscores the critical needs of these projects. I would like to publicly thank on behalf of the UMW their efforts in our behalf and in their support.

Recognizing the extraordinary nature of our request, yet also realizing the critical need for these projects and the fact that there is precedent, we respectfully urge the committee to advance authorization to these five projects on the Ohio River system.

Thank you, Mr. Chairman.

Mr. NOWAK. Thank you all for your testimony, and all of the written testimony will be incorporated in the record in its total package.

We will be reviewing this along with the corps, and, as you know, we're trying to keep on the two-year authorization schedule.

Your very important system here truly is an important economic generator for the whole country, as well as the Ohio Valley, and we will move in an orderly fashion to urge the corps to bring all of the projects that can be cycled into this year to us before we start marking up this bill, which hopefully will be in the early or mid part of the summer.

I could only urge you to work with the corps at the local levels, and anything that the chief is looking for here in terms of explanation or further work to help him proceed with that draft would be of immense value to us.

The conditional authorization is an avenue that we will probably try to work in, especially where they're very, very close, so the more final they become, the higher probability we'll be able to work it into this cycle.

Let me turn to Arlan Stangeland at the present time.

Mr. STANGELAND. Thank you, Mr. Chairman.

Certainly, I think we understand and have been monitoring the concern of the river system in the Ohio River area and its importance to commerce.

Is this an all or nothing proposal or is there a priority in this package?

Mr. PALMER. Yes, sir. The priority is the McAlpine Lock and Dam, because it's farther along in the process with the Corps of Engineers, and then the Monongahela River Locks and Dams 2, 3, and 4, and what we're really looking at there are replacement of Locks and Dams 3 and 4 with one new facility and construction of a new dam at 2.

We're talking about putting a gated dam there. We have been working with the Corps of Engineers at the local level, at the district level, we've been working with them at the division level in Cincinnati, and we have been working with them here in Washington, DC.

So we're all working together, but that's the priority for those projects.

Mr. STANGELAND. What problems do we cause you if we fail to authorize the 2, 3, and 4 and the Marmet in this authorization and put you off two years? Does that create a big problem?

Mr. PALMER. We believe out there in the field that we could probably get the Monongahela River projects under construction in 1994.

We'd like to expedite those because of what we see, and it's not very well known at this time, the almost crisis nature of the projects.

When we said earlier that the Corps of Engineers, the technical engineering people have looked at those facilities, we're really concerned about how long they're going to last.

I don't think in all of the projects we've worked on, whether it's been Gallapalis or Point Marion and Gray's Landing on the Monongahela River or the Winfield Lock and Dam, every project is different, but here we've got one that has unique problems.

The problems that we have here with this are the Lock and Dam 3 on the Monongahela River, and Congressman Coyne's going to talk about that in a few minutes, is in such a deteriorated condition and structurally unstable that I think people who go there and look at that thing are going to be convinced that maybe we ought to put that on a faster track than maybe some of the others.

Mr. STANGELAND. The reason I asked, of course, is that as we put this together, we'll have to try to prioritize within the resources available, and it's well for us to hear from you.

Mr. PALMER. I know Mr. Mazzoli testified last week and Mr. Wise from West Virginia, Congressman Wise, testified last week about the Marmet Project, and those are the rankings that we assigned to them.

Maybe this isn't the year for Marmet, for example. Maybe 1992 is the year. But those are the priorities, and those are the reasons.

Mr. STANGELAND. We appreciate that. Thank you.

Thank you, Mr. Chairman.

Mr. NOWAK. Are there other questions that members would like to ask at this time? If not, gentlemen, let me just conclude your testimony here with the remark that we will have the staff working with the corps because I know the importance and what happens to a system if one of the locks fail.

It isn't easy to take those barges off the river, I understand, onto the road and back onto another piece of the river, and when we had that Welland problem where we had a cave in for 30 or 60 days, and we had 100 and some boats sitting outside the Welland Canal in Lake Erie, it made an enormous difference.

We try to urge the corps at least to look at these priorities and try to get those to us in as quick time frame as we can, and we thank you for your testimony today.

Mr. PALMER. Thank you, Mr. Chairman.

[Mr. Palmer's prepared statement; Mr. Toohey's prepared statement, Mr. Hahne's prepared statement; and Mr. Gabor's prepared statement follow:]

TESTIMONY OF R. BARRY PALMER

BEFORE THE HOUSE PUBLIC WORKS AND TRANSPORTATION SUBCOMMITTEE ON WATER RESOURCES

14 MARCH 1990

EXECUTIVE DIRECTOR OF DINAMO
THE ASSOCIATION FOR THE DEVELOPMENT OF INLAND NAVIGATION
IN AMERICA'S OHIO VALLEY

DEAR MR. CHAIRMAN:

I AM BARRY PALMER EXECUTIVE DIRECTOR OF DINAMO, THE ASSOCIATION FOR THE DEVELOPMENT OF INLAND NAVIGATION IN AMERICA'S OHIO VALLEY. I AM HERE THIS AFTERNOON IN PRESENTATION OF TESTIMONY SUPPORTING CONGRESSIONAL AUTHORIZATION, SUBJECT TO A FINAL REPORT OF THE CHIEF OF ENGINEERS, FOR A NEW 110' X 1,200' LOCK AT THE MCALPINE LOCK AND DAM, INDIANA/KENTUCKY, OHIO RIVER, IMPROVEMENTS AT MONONGAHELA RIVER LOCKS AND DAMS 2, 3, AND 4, PENNSYLVANIA, AND FOR A NEW LOCK, THE MARMET LOCK AND DAM ON THE KANAWHA RIVER, WEST VIRGINIA.

IN APPEARING BEFORE THIS DISTINGUISHED SUBCOMMITTEE , I AM FULLY COGNIZANT THAT THE CORPS OF ENGINEERS HAS NOT YET PROCESSED THE FINAL REPORTS OF THE CHIEF OF ENGINEERS WITH RESPECT TO THESE FIVE PROJECTS. HOWEVER, MR. CHAIRMAN, THE CASE FOR EXPEDITIOUS CONGRESSIONAL ACTION ON THESE PROJECTS IS FULLY WARRANTED. FIRST, WE ARE URGING EXPEDITIOUS MODERNIZATION OF MCALPINE LOCK AND DAM, OHIO RIVER, KENTUCKY/INDIANA, PRINCIPALLY REPLACEMENT OF THE PRESENT 600' AUXILIARY LOCK CHAMBER WITH A NEW 110' X 1,200' LOCK, RESULTING IN TWIN 1,200' LOCKS AT THE PROJECT. WE SUPPORT CONSTRUCTION OF A NEW 1,200' FACILITY FOR THE FOLLOWING REASONS: 1) PRESENT AND FUTURE TRAFFIC NEEDS DICTATE CONSTRUCTION OF AN ADDITIONAL 110' X 1,200' LOCK; 2) THE BENEFITS OF MODERN LOCKS AND DAMS AT MCALPINE ARE VITAL TO THE DISTRIBUTION OF THE OHIO VALLEY'S COMMERCE INCLUDING, COAL, PETROLEUM, CHEMICALS, STEEL, AGGREGATES AND AGRICULTURAL PRODUCTS; AND 3) THE CURRENT RECOMMENDED PLAN B BY THE LOUISVILLE DISTRICT, U.S. ARMY CORPS OF ENGINEERS APPEARS NOT TO IMPACT ADVERSELY, THE FALLS OF THE OHIO WILDLIFE CONSERVATION AREA.

THE RECOMMENDED PLAN IS SUPPORTED BY THE GOVERNOR'S OF INDIANA AND

KENTUCKY AND BY CONGRESSIONAL INTERESTS OF THE AFFECTED STATE OF INDIANA AND THE COMMONWEALTH OF KENTUCKY.

IN 1986 COMMERCIAL TRAFFIC AT MCALPINE LOCKS AND DAM WAS 53.4 MILLION TONS AND IS PROJECTED TO INCREASE TO 72.0 MILLION TONS BY THE YEAR 2000 AND 141.6 MILLION TONS BY THE YEAR 2050. MCALPINE IS STRATEGICALLY LOCATED ON THE OHIO RIVER BETWEEN PITTSBURGH, PENNSYLVANIA -- AMERICA'S LARGEST INLAND NAVIGATION PORT -- AND THE MISSISSIPPI RIVER, GATEWAY TO THE GULF IN NEW ORLEANS AND THE UPPER REACHES OF THE MISSISSIPPI IN MINNEAPOLIS/ST. PAUL. ANY SCHEDULED OR UNSCHEDULED SHUTDOWN OF THE MAIN LOCK AND SUBSEQUENT SUSTAINED OPERATION OF AUXILIARY LOCK WILL LEAD TO SUBSTANTIAL DELAYS. FOR EXAMPLE, THE MAIN 1,200' LOCK WAS CLOSED FOR TRAFFIC FOR 35 DAYS IN JUNE AND OCTOBER 1987, FORCING SUSTAINED USE OF THE AUXILIARY 600' CHAMBER. 723 TOWS WERE DELAYED AN AVERAGE OF 30 HOURS PER TOW, COSTING INDUSTRY AN ESTIMATED $4.4 MILLION. BETWEEN 1982 AND 1988 TOW DELAY COSTS AT MCALPINE TOTALLED $28.3 MILLION. BY THE YEAR 2000 THIS PROBLEM IS EXPECTED TO BECOME EVEN MORE SEVERE AS THE AUXILIARY CHAMBER WILL BE RELIED UPON TO HANDLE TRAFFIC LEVELS THAT GREATLY EXCEED ITS CAPACITY. THESE DELAYS PENALIZE OHIO RIVER INDUSTRY AND COMMERCE, AND IF NOT CORRECTED WILL RETARD OUT REGION'S COMPETITIVE EDGE IN A GLOBAL ECONOMY.

DINAMO HAS BEEN INVOLVED IN THE PLANNING PROCESS OF THE CORPS OF ENGINEERS FOR MANY YEARS WITH RESPECT TO THE MCALPINE IMPROVEMENT PROJECT. WE HAVE PARTICULARLY FOCUSED ON THE NAVIGABILITY AND OPERATIONAL SAFETY OF THE RECOMMENDED PLAN, AS WELL AS THE COMPATABILITY OF THE RECOMMENDED PROJECT WITH RESPECT TO FUTURE NEEDS OF FACILITIES UPSTREAM AND DOWNSTREAM OF MCALPINE. AN IMPRESSIVE FACTOR THAT COMPELS STRONG SUPPORT FOR THE NEW 1,200' LOCK IS THE

COMMONALITY OF TRAFFIC THAT TRANSITS MCALPINE AND OTHER LOCKS UPSTREAM AND DOWNSTREAM. FOR EXAMPLE, NEARLY 70% OF THE TRAFFIC THAT TRANSITS THE MCALPINE FACILITY ALSO TRAVELS THROUGH LOCKS AND DAM 52. ADDITIONALLY MORE THAN 47% OF THE TRAFFIC THROUGH THE GALLIPOLIS LOCKS TRANSITS MCALPINE LOCKS.

THE BENEFITS OF THE MCALPINE LOCKS AND DAM ARE WIDESPREAD. TWENTY STATES EITHER RECEIVE OR SHIP COMMERCE THROUGH THE MCALPINE FACILITY. WHILE THE IMPROVEMENT IS ESTIMATED TO COST $219 MILLION, THE INCREMENTAL AVERAGE ANNUAL BENEFITS AND COSTS ASSOCIATED WITH PLAN B, WHEN COMPARED AGAINST THE WITHOUT CONDITIONS, ARE $30,300,000 AND $19,500,000, RESPECTIVELY, RESULTING IN A BENEFIT TO COST RATIO OF 1.6. ANNUAL NET BENEFITS, INCREMENTAL TO THE WITHOUT PROJECT CONDITION ARE $10,800,000. SIMPLY STATED, THE NATION SAVES $10.8 MILLION ANNUALLY IN TRANSPORTATION COSTS THROUGHOUT THE LIFE OF THE PROJECT BY THE MODERN TWIN 110' x 1,200' LOCKS AT MCALPINE.

NEXT MR. CHAIRMAN, WE ARE URGING THE CONDITIONAL AUTHORIZATION FOR IMPROVEMENTS OF LOCK AND DAMS 2, 3, AND 4, ON THE MONONGAHELA RIVER. DINAMO HAS PARTICIPATED FULLY OVER THE PAST THREE YEARS IN A NUMBER OF VERY IMPORTANT STEPS OF THE CORPS OF ENGINEERS PROCESS FOR THE LOCK AND DAM MODERNIZATION STUDY. DINAMO REPRESENTATIVES PARTICIPATED, FOR EXAMPLE, IN THE ISSUE RESOLUTION CONFERENCE CONDUCTED ON NOVEMBER 1 AND 2 IN PITTSBURGH, PENNSYLVANIA TO EXAMINE THE CONDITION OF THE INLAND NAVIGATION FACILITIES AT LOCKS AND DAMS 2, 3, AND 4, MONONGAHELA RIVER, AND IN THE DEVELOPMENT OF "WITHOUT PROJECT CONDITION," THE BASIS FOR ANY FEASIBILITY STUDY. ADDITIONALLY, WE PARTICIPATED ON JANUARY 17, 1990 IN A MEETING CONDUCTED BY THE PITTSBURGH DISTRICT, U.S. ARMY CORPS OF ENGINEERS, IN PITTSBURGH, PENNSYLVANIA TO EVALUATE ALTERNATIVE MODERNIZATION

ACTIONS AND TO ARRIVE AT A CONSENSUS OF THE BEST PLAN FOR IMPROVEMENT OF INLAND NAVIGATION FACILITIES ALONG THE STRETCH OF THE RIVER.

THE PROBLEMS OF MONONGAHELA RIVER LOCKS AND DAMS 2, 3, AND 4 ARE THEIR AGE, DETERIORATION, AND OBSOLESCENCE. FOR EXAMPLE, AT LOCK AND DAM 2, THE DAM NEEDS TO BE REPLACED. BUILT NEARLY 90 YEARS AGO, THE CONDITION OF THE FACILITY INCLUDING ITS DETERIORATION AND INSTABILITY, IS SUCH THAT THE CORPS OF ENGINEERS REPORTS THAT THE DAM IS "HIGHLY SUSCEPTIBLE TO FAILURE." THE MAIN LOCK CHAMBER AT MONONGAHELA RIVER LOCK AND DAM 2, IS 110' X 720' LONG, AND IT IS COMPATIBLE WITH THE WIDTH OF THE MAIN PRIMARY LOCK AT THE EMSWORTH LOCKS AND DAM, DOWNRIVER ON THE OHIO.

MONONGAHELA RIVER LOCKS AND DAM 3, BUILT NEARLY 85 YEARS AGO, NEEDS TO BE REPLACED. THE PITTSBURGH DISTRICT'S TOP ENGINEERING MANAGERS HAVE TOLD US THAT THE CONDITION OF LOCKS AND DAM 3 IS OF SUCH SERIOUS CONDITION THAT IN THEIR RISK ANALYSIS THEY CAN NOT DETERMINE WHETHER THE LOCK OR DAM WILL SLIDE, TIP, OR CRUMBLE INTO THE RIVER. THE LOCK SIZES AND LOCK AND DAM 3 ARE 56' X 720' LONG, NEARLY HALF THE WIDTH OF THE MAIN LOCK AT LOCK AND DAM 2.

LOCKS AND DAM 4 IS APPROXIMATELY 58 YEARS OLD. ITS STRUCTURAL CONDITION APPEARS TO BE IN SATISFACTORY CONDITION FOR ITS AGE, BUT THE LOCK CHAMBERS ARE 56' X 720' AND 56' X 360', AT LEAST HALF OF THE WIDTH NECESSARY FOR MODERN TRAFFIC CONDITIONS ON THE LOWER MONONGAHELA RIVER. IT APPEARS AT THIS STAGE OF THE PROCESS, MR. CHAIRMAN, THAT REPLACEMENT OF LOCKS AND DAM 3 AND LOCKS AND DAM 4 WITH A MODERN STRUCTURE SOMEWHERE BETWEEN BOTH FACILITIES WILL BE PART OF THE RECOMMENDED PLAN.

NEXT, MR. CHAIRMAN, WE ARE URGING CONDITIONAL AUTHORIZATION SUBJECT TO A FINAL REPORT OF THE CHIEF OF ENGINEERS OF THE MARMET LOCK AND DAM ON THE KANAWHA RIVER. MARMET IS CURRENTLY PART OF THE KANAWHA RIVER NAVIGATION STUDY WHICH WAS AUTHORIZED BY CONGRESS IN 1977. CURRENT TRAFFIC LEVELS AT MARMET ARE OVER 12 MILLION TONS PER YEAR, WITH COAL BEING THE PRIMARY COMMODITY. THE PRIMARY NAVIGATION PROBLEMS AT MARMET ARE THE SMALL LOCK CHAMBERS, 360' X 56' LONG, RESULTING IN TRAFFIC CONGESTION AND DELAYS. IT IS PROJECTED THAT THE TRAFFIC DEMAND WILL INCREASE TO OVER 20 MILLION TONS, THE MAXIMUM CAPACITY OF THE LOCKS AS EARLY AS 1995, BECAUSE OF THE ANTICIPATED PASSING OF THE CLEAN AIR ACT AND INCREASE IN DEMAND OF LOW SULFUR COAL.

DINAMO'S MEMBERS HAVE BEEN PARTICIPATING IN NUMEROUS PARTS OF THE HUNTINGTON DISTRICT, U.S. ARMY CORPS OF ENGINEERS STUDY PROCESS AND IT IS CLEAR TO US THAT A NEW MODERN LOCK, PREFERABLY WITH A SINGLE LOCK CHAMBER OF 110' X 800' LONG, WHICH WOULD BE COMPATIBLE WITH THE NEW LOCK THAT IS BEING BUILT AT THE WINFIELD LOCK AND DAM DOWNRIVER OF MARMET.

COLONEL THOMAS FAREWELL, THE HUNTINGTON DISTRICT ENGINEER, CONDUCTED A PUBLIC MEETING ON THE MARMET LOCK REPLACEMENT STUDY ON NOVEMBER 28, 1989, AND I BELIEVE CONGRESSMAN ROBERT WISE HAS SUBMITTED TESTIMONY IN SUPPORT OF MODERNIZATION INITIATIVE AT THIS PROJECT EARLIER IN THE COURSE OF THESE HEARINGS. HENCE WE URGE YOUR SERIOUS CONSIDERATION OF A MODERNIZATION ACTION ON THIS PROJECT ALSO.

MR. CHAIRMAN, I HAVE ATTACHED TO THIS TESTIMONY, THREE DINAMO ECONOMIC REPORTS THAT WE WOULD APPRECIATE BEING INCORPORATED AS A PART OF THE RECORD OF

THIS HEARING. THEY ARE AS FOLLOWS; "RELIEVING WATERWAY BOTTLENECKS: THE IMPORTANCE TO THE COAL INDUSTRY OF WEST VIRGINIA AND KENTUCKY", DATED, AUGUST, 1989; "THE MODERNIZATION OF THE OHIO RIVER NAVIGATION SYSTEM AND THE DISTRIBUTION OF PETROLEUM PRODUCTS", DATED, OCTOBER, 1989; AND "RELIEVING WATERWAYS BOTTLENECKS: IMPORTANCE TO THE COAL INDUSTRY OF OHIO", DATED, MARCH, 1990. THESE REPORTS, MR. CHAIRMAN, STRONGLY URGE THE CONTINUED MODERNIZATION OF THE LOCK AND DAM SYSTEM ON THE OHIO RIVER AND ITS NAVIGABLE TRIBUTARIES, BECAUSE, IMPROVEMENTS IN OUR LOCK AND DAM FACILITIES IS CRITICAL TO THE FUTURE ECONOMIC HEALTH OF THE REGION. THE RIVER'S HAVE BEEN AN IMPORTANT ECONOMIC GENERATOR, AND THEY WILL CONTINUE TO BE AN IMPORTANT ECONOMIC GENERATOR AS LONG AS WE HAVE MODERN, EFFICIENT LOCKS AND DAMS. WE ARE MOST GRATEFUL TO THE TREMENDOUS HISTORY OF SUPPORT OF THIS COMMITTEE FOR AN ORDERLY INLAND NAVIGATION SYSTEM MODERNIZATION PROGRAM IN THE NATION AND THE OHIO VALLEY. WE LOOK FORWARD TO WORKING WITH YOU CLOSELY IN THE FUTURE AND THANK YOU FOR THE OPPORTUNITY TO BE HERE TODAY.

August 1989

DINAMO
ECONOMIC REPORT

The Association for the Development of Inland Navigation in America's Ohio Valley • Three Gateway Center • Pittsburgh, PA 15222

Relieving Waterway Bottlenecks: The Importance to the Coal Industry of West Virginia and Kentucky

Thousands of dollars in income for each household in coal-producing West Virginia and Kentucky counties is generated by coal moving through outdated and obsolete Ohio River system locks and dams. Waterway bottlenecks must be relieved now if the coal-based economies of West Virginia and Kentucky are to prosper, according to Marvin J. Barloon, Carlton Professor of Economics, Case Western Reserve University. At DINAMO's request, Professor Barloon prepared two reports, *Relieving Waterway Bottlenecks: Importance to the Coal Industry of West Virginia and Relieving Waterway Bottlenecks: Importance to the Coal Industry of Kentucky.* DINAMO submitted these reports to the House and Senate appropriations panels on Tuesday, April 4, 1989 as written testimony. The following is a summary of these two reports:

Water - Coal's Competitive Edge

The low cost of river transportation is beneficial to all coal mined in West Virginia and Kentucky, including that shipped by rail. In December 1988 two major railroads, CSX Transportation and the Norfolk Southern Corporation, rescinded programmed rate increases on Appalachian coal carried to Atlantic ports for export. The cancellation of the increases will save West Virginia coal an estimated $13.5 million in 1989 alone. Waterways competition for export coal was a clear incentive for railroad restraint in these circumstances.

Advantage to Export Coal

Export coal can move by barge down the Ohio and Mississippi Rivers for export in the New Orleans area. In the 1970's, only about one million tons per year moved this way. But after 1980 the waterborne export movement rose irregularly to 9.4 million tons in 1986. About 4.3 million tons of West Virginia coal took the waterway track to the Gulf in 1986, some for export and some for coastal utilities. That same year Kentucky shipped 16.6 million tons via the Ohio River System to New Orleans and coastal markets. Export coal shipped via water to New Orleans had a mine value of about $256.7 million.

West Virginia Coal's Dependence on Water Transportation

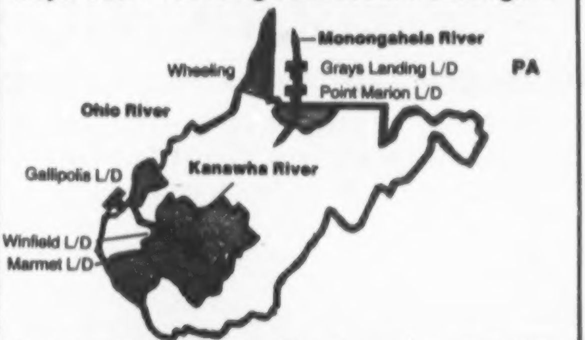
In 1986, West Virginia shipped 35,000,000 tons of coal to market via the river system. This coal had a mine value of $1,100,900,000. This same year Kentucky shipped 37,946,000 tons of its coal on the Ohio River navigation system. This tonnage had a mine value of $978,333,000.

For West Virginia coal, the three routes to markets via the river include 1) northbound movements on the Monongahela River through Locks and Dams 7 & 8; 2) northbound movements on the Kanawha River through the Winfield Locks; and 3) coal movements originating on the Ohio River moving downbound through Gallipolis, McAlpine Locks and Locks and Dams 52 and 53, and the Kentucky Lock on the Tennessee River.

Locks and Dams 7 & 8

In 1986, Locks and Dams 7 and 8 transited 10.8 million tons of northbound coal, 9.2 million tons of it from northern West Virginia. Most of this coal was short haul, but some went to destinations in Tennessee and a portion even reached Louisiana. The average mine price in Marion and Monongalia Counties in 1986 was $32.27 per ton, and, at this price, the coal shipments via Locks 7 and 8 represented income to the area of about $297.8 million. Probably not less than some $200 million was local income. At only $200 million this income amounted to $3,800 per household in the two counties.

Major Coal-Producing Counties in West Virginia



The darkened areas on the map of West Virginia reflect the major coal-producing counties whose coal is shipped to market via the old, deteriorating and sometimes obsolete locks and dams on the Ohio River System.

The local impact of this respending (commonly called the "multiplier") is generally estimated as being equivalent to the initial income, or in this case about $400 million. This amount translates to $7,800 per household generated by coal shipped via Locks 7 & 8. It should be noted that the coal transiting Locks 7 & 8 was just short of 30 percent of total household income in the Fairmont and Morgantown areas.

Shipments of West Virginia Coal Via River 1986

Via	Tons	Mine Values (Millions)
Locks 7 & 8, Monongahela River	9,172,000	$297.8
Winfield Locks, Ohio River	12,467,000	389.1
Ohio River:		
Via Obsolete Locks	6,696,000	213.3
Other Ohio River	6,665,000	204.6
Totals	35,000,000	$1,100.9

Sources: U.S. Department of the Army, Corps of Engineers. Energy Information Administration, U.S. Department of Energy.

Winfield Locks

In 1986 12.5 million tons of coal exited via the Winfield Locks. There are six coal-producing counties (Boone, Clay, Fayette, Kanawha, Nicholas and Raleigh) either on the Kanawha River or contiguous with the river field. This coal had a value at the mine of $389.1 million. Probably something in the neighborhood of $260 million of this was direct local income, and, allowing for the multiplier effect of local re-spending for goods and services, the income so generated in the six-county area probably amounted to some $3,250 per household.

Ohio River Locks

In 1986 13.1 million tons of waterborne West Virginia coal originated on the main stream of the Ohio River between the Pennsylvania border and the mouth of the Big Sandy. About one-half of this tonnage moved in relatively short hauls free from constraint by obsolete locks, but the remainder, 6.7 million tons, had to work its way through the Gallipolis Locks or the Olmsted reach, or both. Between West Virginia and Olmsted, of course, the coal had to transit the McAlpine Locks at Louisville.

(continued on page 3)

West Virginia Coal *(continued from page 2)*

In addition, substantial tonnages were shipped to Tennessee River destinations. At the mouth of the Tennessee, this tonnage was affected by the limited capacity of the Kentucky Lock, now under study for capacity enlargement.

As a measure of the importance of the waterborne coal to the producing communities, the mining origins are dispersed among a large number of counties. A suitable indicator, however, may be derived from the values of coal production in the four producing counties (Brooke, Marshall, Mason and Ohio) on the Ohio upstream from the mouth of the Kanawha and in three even larger producing counties in the hinterland of the Port of Huntington; that is, Boone, Logan and Mingo.

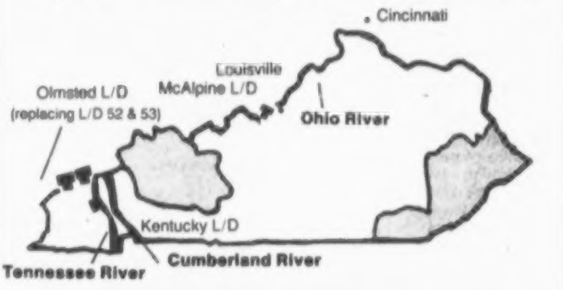
At the average 1986 mine price for these counties, the value of the coal originated on the main stream of the Ohio was $417.9 million. The portion of this revenue which constituted local income in the mining areas was probably not less than $280 million, and, again recognizing the doubling via less local respending, the estimated income per household generated by Ohio River shipments of coal from these counties approximated some $8,786. Setting aside, however, that portion of the river shipments which did not transit any of the obsolete and congested locks, the remaining 6.7 million tons which did transit them generated local income in the general magnitude of $4,500 per household in the affected counties.

Kentucky Coal's Dependence on Water Transportation

In 1986 Kentucky shipped 37,946,000 tons of its coal on the Ohio River navigation system. Nearly 2/3 of this coal moved through out-dated and obsolete lock and dam facilities. This tonnage had a mine value of $978,333,000. After deducting the estimated portion of the coal mining industry's revenues expended in other localities and factoring into account the "multiplier" impact of local re-spending, the income from the sale of riverborne coal in 1986 averaged approximately $5,705 for each household in the 21 Kentucky counties which produced more than 1.0 million tons each. These 21 counties produced 94.7 percent of all the coal mined in the state in 1986.

A more telling picture of the importance of coal shipped through old, obsolete lock and dam facilities can be gained by segmenting coal production in eastern and western Kentucky.

Major Coal-Producing Counties In Kentucky



The major coal-producing counties of Kentucky whose coal is shipped to market via the deteriorating and sometimes obsolete locks and dams on the Ohio River System are indicated by the darkened areas on the map.

Eastern Kentucky

Eastern Kentucky waterborne coal totalled 16,748,000 tons with a mine value of $441,812,000. The $441.8 million of mine revenue is principally income to residents of the mining areas. Some portion, of course, is paid to suppliers and investors in other localities. Very probably, however, not less than some $300 million is local income. The actual impact on the region's livelihood is about double this sum. The "multiplier" effect of local re-spending by mining personnel, local suppliers, and investors results in an aggregate community income in the neighborhood of $600 million. As a measure of magnitude, this amounts to about $4,509 for each household in the 13 eastern Kentucky counties which in 1986 produced over 1.0 million tons of coal each, attributable exclusively to coal shipped from the area by water.

Western Kentucky

In 1986 21,198,000 tons of Western Kentucky coal moved on the Ohio River and its tributaries. This coal had a mine value of $563,521,000. Adjusting mine income for payments to 110 suppliers and investors in other localities, and factoring in the multiplier effects of local respending, waterborne coal mined in western Kentucky resulted in income of $7,383 for each household in the eight western Kentucky counties (Butler, Daviess, Henderson, Hopkins, Huhlenberg, Ohio, Union and Webster) which in 1986 produced over 1.0 million tons of coal each.

Kentucky as a whole Benefits

A modernized river navigation system for getting Kentucky's coal to distant markets at a low cost is a substantial factor in the quality of life and public services throughout the state. These public services include schools, hos-

(continued on page 4)

Kentucky Coal

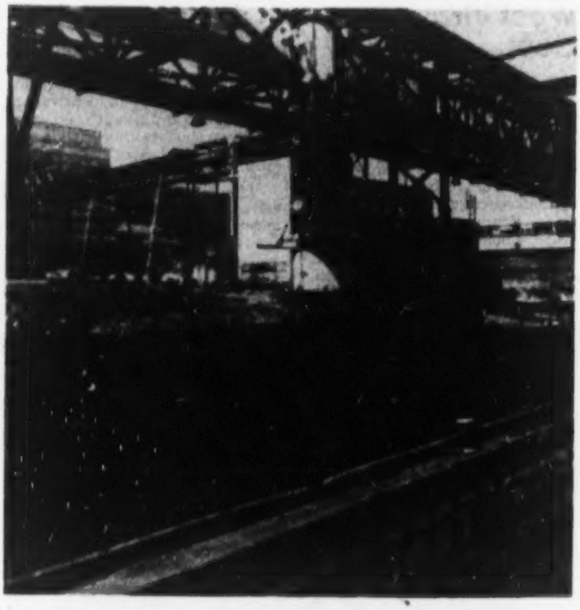
(continued from page 3)

pitals, street and road maintenance, police and fire protection and a variety of other services essential to personal security and the quality of life. One estimate projected that Kentucky coal shipped on the river generated direct state and local tax revenue of at least $59.6 million and indirect tax revenues of about $108.9 million. This total amounts to $124.35 for each of the 1,355,000 households in the Commonwealth of Kentucky.

Kentucky produces more coal than any other state in the Union. Kentucky also ships more coal by river than any other state in the Union. Much that does not move by river moves by rail at water-competitive rates. The National Coal Association projects the demand for U.S. coal, domestic and export, for 1990 at 994 million tons and for 2000 at 1,181 million. These are the Association's "moderate" projections. By 1987, the industry had already come close to the 1990 figure at 914.7 million tons.

A modern, efficient navigation system is crucial to West Virginia and Kentucky's coal-based economies. Communities in both states depend on the reliable operation of lock and dam facilities for their livelihoods. To ensure that these states can remain competitive and partake in the opportunities of the future, modernization of critical lock and dam structures, such as Locks and Dams 7 & 8, Winfield Locks, Gallipolis and Olmsted Locks and Dams, must be a priority.

Marvin Barloon



Tonnages and Values of Kentucky Coal Shipped on the Ohio River and Its Tributaries 1986

Via Outmoded Lockage Structures:

Lockage Structure	**Tons**	**Mine Value**
Gallipolis Only	3,087,000	$ 81,435,000
McAlpine Only	5,128,000	131,550,000
McAlpine & Olmsted	7,061,000	186,269,000
McAlpine & Kentucky	525,000	13,850,000
Olmsted Only	7,053,000	178,511,000
Kentucky Only	457,000	11,567,000
Totals	23,311,000	$603,182,000
Via Modernized Locks & Open River	14,635,000	375,151,000
Total State Riverborne Shipments	37,946,000	$978,333,000

SOURCES: U.S. Department of Energy, Energy Information Administration, ***Coal Production,*** *1986.*

U.S. Department of the Army, Corps of Engineers, ***Waterborne Commerce of the United States,*** *1986, Part 5, Section 2. State-by-state origins and destinations of cargo tonnages via the McAlpine Locks were provided by the Waterborne Commerce Statistics Center as tabulated by the Louisville District Navigation Planning Support Center.*

DINAMO
ECONOMIC REPORT
October 1989

The Modernization Of The Ohio River Navigation System And The Distribution Of Petroleum Products

Petroleum barges and tow moving along the Ohio River.

The Ohio and its tributaries constitute a major distribution network for the U.S. petroleum industry and provide an abundance of low cost petroleum fuels over much of northern Alabama, Tennessee, Kentucky, Illinois, Indiana, Ohio, West Virginia, and western Pennsylvania. In 1986, the Ohio River System carried about 107.8 million barrels of petroleum products with a wholesale value of about $4.0 billion. As a measure of magnitude, these petroleum products (listed in Table I) were equivalent to about a week's demand nationwide. The gasoline, alone, was equivalent to about 2.5 times the total gasoline consumption of the State of West Virginia.

Because of its unmatched low cost in moving basic fuels such as coal and petroleum products, the improvement of the system is basic to industrial and commercial activity throughout the Ohio Valley States.

A comprehensive program for the modernization of the Ohio River navigation system was initiated in 1986. Five modern lock and dam facilities have been authorized by the Congress for replacement, including the new Gallipolis locks, Ohio River OH/WV; Grays Landing and Point Marion, Monongahela River, PA/WV; Winfield Lock, Kanawha River, WV; and the Olmsted Locks and Dam, Ohio River, IL/KY.

Six additional projects have been identified for improvement: McAlpine Locks and Dam, Ohio River, IN/KY; Monongahela River Locks and Dams 2, 3 & 4, PA; Marmet Locks and Dam, Kanawha River, WV; and Kentucky Lock, Tennessee River, KY.

This report was prepared by Marvin J. Barloon, Carlton Professor of Economics (Emeritus), Case-Western Reserve University, in order to 1) focus on the distribution of petroleum products on the Ohio River Navigation System and its importance to the people in the Ohio Valley states, and to 2) advance the modernization of old, deteriorating, and obsolete locks and dams in the region.

The Barging Linkage with Pipelines and Trucking

The barging of petroleum products complements pipeline distribution, providing flexibility for seasonal changes in demand for such products as gasoline and fuel oil and serving communities too small for pipeline receipt. Barging charges for any given distance are roughly comparable to pipeline costs, but considerably less for smaller and irregular movements. Refineries several hundred miles from the rivers (including some in the Great Lakes area) move petroleum products by pipeline to terminals on the Ohio River and its tributaries for distribution by barge on the river system. At barging terminals, tank trucks carry these products to inland communities.

River Reaches Reliant On New Navigation Works

The Lower Ohio Basin and the Olmsted and McAlpine Projects

The Louisville District of the Army Corps of Engineers encompasses southwestern Ohio, western Kentucky, and substantial portions of Indiana and Illinois. In 1986, this region received via the rivers from Gulf Coast, Mississippi Valley, and Chicago area refineries 349.5 million gallons of gasoline, 4.3 million barrels of fuel oil, and 3.4 million barrels of asphalt and tar, in addition to large quantities of lubricating oils, kerosene, jet fuel and other products. All of these products had to enter the Ohio River at the mouth through the Olmsted gateway.

The Olmsted gateway is now served by two antiquated lock-and-dam structures, completed in 1928 and 1929 and supplemented by more recent stopgap temporary locks whose design service life has already expired. It is becoming increasingly difficult to maintain these works because of the scarcity of their obsolete components. The Olmsted reach is one of the most densely traveled commercial waterway sections in the world. In 1987, it transited over twice as much cargo tonnage as the entire St. Lawrence Seaway, U.S. and Canadian combined.

The riverborne receipts of petroleum products via Olmsted constitute a substantial portion of the total supply of the multi-state Louisville District, not only for motorists and truckers, but for farm operations as well. While the inbound gasoline is distributed among portions of four states, as a measure of magnitude, the 349.5 million gallons transited in 1986 were sufficient to propel every automobile in the State of Kentucky a distance of 3,536 miles. Nearly all of the fuel oil transiting the reach is distillate, including large quantities of diesel fuel, mainly for trucks and farm tractors.

Asphalt and tar, partially employed in building maintenance, are of major importance to highway construction and resurfacing. In 1986, the 3.4 million barrels of these products received into the Louisville District via the Olmsted reach were equivalent to more than twice the total used on highways in the entire State of Indiana.

TABLE I

Petroleum Products Carried On The Ohio River System

1986

	Barrels (000)	Wholesale Value (000)
Gasoline	48,068	$1,857,159
Distillate Fuel Oil	23,156	863,256
Residual Fuel Oil	8,075	227,311
Jet Fuel	7,542	166,301
Kerosene	711	17,000
Lubricating Oils	6,013	506,092
Naphtha	1,579	122,688
Asphalt & Tar	12,547	246,674
Totals	107,771	$4,005,481

Sources: U.S. Dept. of the Army, Corps of Engineers. Prices: The Journal of Commerce, New York, and industry sources.

The Louisville District also received large quantities of petroleum products from easterly sources upstream on the Ohio River, particularly from the Huntington, West Virginia District and the Big Sandy River on the border of eastern Kentucky and West Virginia. A portion of this movement transits the McAlpine Locks at Louisville.

While not as antiquated as the Olmsted works, the main 1,200 foot McAlpine Lock is supplemented by an obsolete 600-foot auxiliary of inadequate depth and excessive turbulence, opened in 1921, and sited under a movable railroad bridge. The McAlpine works are on the verge of being swamped by rapidly growing traffic, tonnage having risen from 33.9 million in 1970 to 54.0 million in 1987.

The magnitude of affected petroleum products is indicated by the 1986 receipts from upstream into the Louisville District of over 602.0 million gallons of gasoline, equivalent to about 32.9 percent of the total gasoline consumption of the State of Kentucky, in addition to 6.2 million barrels of fuel oil--mostly distillate and including large quantities of diesel fuel for trucks and farm tractors. In addition, over 320,000 tons of downbound asphalt, tar, and pitches enhanced the supply for highways and building maintenance. An unreported but substantial portion of these products transited the McAlpine bottleneck on their way to destinations in western Kentucky, Ohio, Indiana, and Illinois.

The Tennessee Valley and the Olmsted and Kentucky Lock Projects

Large quantities of petroleum products are barged into the Tennessee Valley from Mississippi and the Ohio River origins. They are consigned principally to central Tennessee and northern Alabama, although substan-

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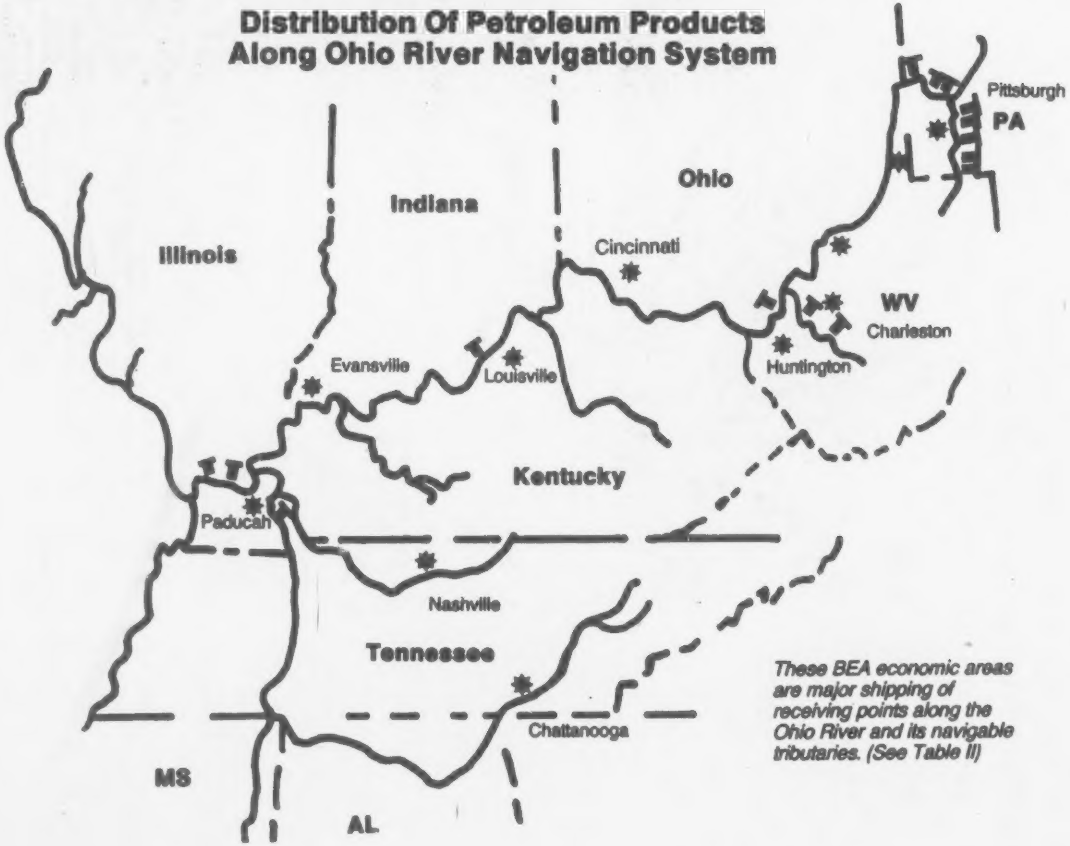
Distribution Of Petroleum Products Along Ohio River Navigation System


Pittsburgh
PA
Ohio
Indiana
Illinois
Cincinnati
WV
Charleston
Huntington
Evansville
Louisville
Kentucky
Paducah
Nashville
Tennessee
Chattanooga
MS
AL

These BEA economic areas are major shipping of receiving points along the Ohio River and its navigable tributaries. (See Table II)

Public Interest Values In The Barging Of Petroleum Products

A petroleum terminal located near Ashland, Kentucky.

Table II

1986 Shipments & Receipts of Ohio Basin Petro-Fuels Traffic (Thousand Tons)

BEA* Name	Shipments	Receipts
Pittsburgh, PA	363.2	2,455.0
Chattenooga, TN	2.0	316.5
Nashville, TN	4.3	215.1
Paducah, KY	123.9	762.7
Louisville, Ky	95.0	2,584.8
Huntington, WV	7,136.2	871.8
Charleston, WV	0.0	1,001.2
Morgantown, WV	0.0	172.2
Parkersburg, WV	577.4	810.8
Wheeling, WV	157.3	465.7
Cincinnati, OH	601.4	1,729.4
Evansville, IN	145.5	1,326.9

** A "BEA" economic area (Bureau of Economic Analysis Economic Area) consists of a standard metropolitan statistical area (SMSA) or a similar area that serves as a center for economic activity, and the surrounding counties that are economically connected to that center.*

Source: Ohio River Division, U.S. Army Corps of Engineers

Enhancement of Competition

In terms of providing a critical linkage in the multi-modal structure of distribution, an efficient, modernized navigation system is very much in the public interest. The system not only saves costs, but by enhancing competition, it assures that these savings will be passed on to the consumers. Because of its relatively low capital requirements, river barging is widely utilized by independent marketers and distributors, many of whom are too small for pipeline participation.

In addition, barging introduces into the regional market large tonnages of products from distant sources. As noted in Table I, gasoline and fuel oil constitute most riverborne tonnage of petroleum products. Of all the gasoline and fuel oil delivered via the Ohio Valley rivers in 1986, 21.7 percent came all the way from the Gulf Coast via the Mississippi River, and another 12.1 percent from Mississippi River connections. The remainder originated at refineries and pipeline terminals on banks of the Ohio and its tributaries.

Service to Small Communities - The Appalachian Region

The benefit of river distribution to small communities is especially notable in its application to the Appalachian Region. In 1986, of all the gasoline and distillate fuel oil received on the Ohio River System, 42.8 percent went to the Appalachian areas of West Virginia, eastern Kentucky, southeastern Ohio, and western Pennsylvania. The tourist industry and trucking for light manufacturing are important elements in the improving Appalachian economy, and the availability of seasonally adaptable deliveries at low cost is of corresponding value.

Bearing on the U.S. Balance of International Payments

By providing low-cost access to widely dispersed markets, the river system strengthens the domestic refining industry as an alternative to product imports. Even with respect to that portion of the products refined from imported crude, the dollar value of the products is considerably higher than that of the crude, representing a substantial saving as against the alternative of product imports. Product imports are a substantial component of supplies originating on the Atlantic Coast, and in the upper Ohio Basin these products are in direct competition with those received by barge from Mississippi and Ohio Valley refineries. The 107.8 million barrels of products moved on the Ohio River System in 1986 were equivalent to 14.4 percent of total U.S. imports of petroleum products that year.

Tennessee Valley Reliant On New Navigation Projects Gallipolis Locks And Pittsburgh District

continued from page 2E

tial portions of the asphalt and other bituminous materials are carried as far as Chattanooga and Knoxville in eastern Tennessee. In 1986, about 9.1 million barrels of gasoline, fuel oil, and bituminous materials were so received. They had a wholesale value of about $300.0 million.

Some two-thirds of these receipts originated on the Mississippi River, much from the New Orleans area. This portion of the Tennessee Valley requirements, of course, has to transit the Olmsted reach of the Ohio. In addition, only 22 miles upstream on the Tennessee, it must move through the obsolete Kentucky Lock.

The capacity of the Kentucky Lock is inadequate for the mounting traffic demand. Transits via this lock have grown from 15.0 million tons in 1970 to 30.1 million in 1987 and are projected to reach 39.0 million by the year 2000. Because of its strategic location near the mouth, the Kentucky Lock is a constraint on the flow of commerce serving the entire 652-mile Tennessee Valley.

The Kentucky Lock is too small for modern vessel units and lacks an auxiliary for relief during closures for repair. The lock chamber is only 600 feet long, in contrast to the 1,000-foot length of the next upstream lock at Pickwick Landing. Lacking an auxiliary (also unlike Pickwick Landing), when the Kentucky Lock was closed for 104 days for rehabilitation work in 1986, traffic had to detour at high cost via the Barkley Canal and the Cumberland River.

The remaining one-third of the petroleum products moving into the Tennessee originates on the Ohio River, mainly from the Huntington, West Virginia, District, and thus has to transit, not only the Kentucky Lock, but prior to arrival at the Kentucky Lock, the McAlpine works at Louisville. This portion of the supply, too, is thus under a double handicap.

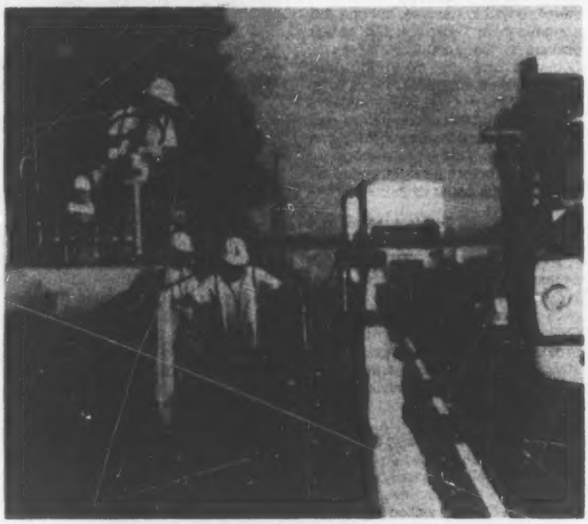
The Gallipolis Project and the Pittsburgh District

While dependence on the modernization program is serious in the Louisville District and the Tennessee Valley it is more critically so in the upper Ohio Basin. The upper Ohio Basin encompasses the Pittsburgh District of the Ohio River with its tributaries, the Monongahela and the Allegheny, and, in addition, the Kanawha Valley of central West Virginia. This large area embraces eastern Ohio, western Pennsylvania (including the Pittsburgh metropolitan area), and all of northern and central West Virginia (including the capital city of Charleston).

In 1986, about 91.7 percent of all the petroleum products received in this region by water were brought upstream via the outmoded locks and dam at Gallipolis, Ohio, on the Ohio River bordering the states of Ohio and West Virginia. The existing locks and dam at this site, completed in 1937, are the only remaining Ohio River navigation works lacking a 1,200-foot lock between the Pennsylvania border and the Mississippi River. With its main lock only 600 feet long, the existing facility is badly congested, run down, and hazardous to life and property.

In 1986, over 17.8 million barrels of gasoline, fuel oil, asphalt, and tar, in addition to substantial quantities of kerosene, jet fuel, lubricating oils, and other petroleum products, were moved upstream via the Gallipolis Locks into the Pittsburgh District of the Ohio River. (This does not include receipts in the Kanawha Valley.) The 17.8 million barrels had a whole sale value of about $612.0 million.

The riverborne receipts are a large portion of the region's total supply. About one-half of the tonnage was gasoline. As a measure of quantity, in 1986 the gasoline received into the Pittsburgh District was sufficient to propel every one of the household-owned passenger automobiles in the



Waterborne asphalt products are used in road maintenance.

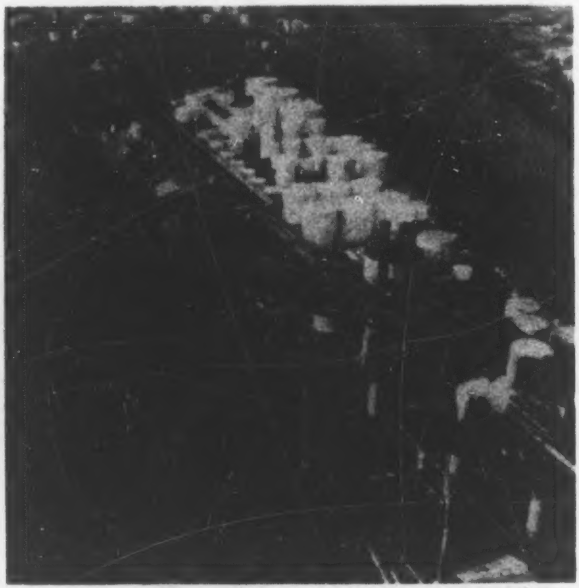
Pittsburgh District

continued from page 5E

Winfield Lock And The Charleston, West Virginia Area

four-county Pittsburgh metropolitan area a distance of about 5,300 miles, 55.0 percent of the year's total mileage. In addition, about 3.7 million barrels of distillate fuel oil were received in the Pittsburgh District via Gallipolis. Much of this was diesel fuel. The district is distinctive in the large quantity of residual fuel oil received via the Ohio, of special value to the region's steel industry and electric utilities. The district received 3.0 million barrels of residual in 1986 with an estimated wholesale value of about $85.6 million. River barging is especially important to the supply of residual fuel oil because this fuel is not ordinarily pipeline-adapted.

The Pittsburgh District had a distinctively large stake in the Ohio River modernization program because of its location as the terminal area of the entire river system, Mississippi and Ohio combined. In 1986, about one-third of all gasoline and other petroleum products riverborne into the district came all the way from the Gulf Coast and the Mississippi Valley and therefore had to traverse, not only the congestion at Gallipolis, but before arriving at the antiquated works at Olmsted and the congestion at McAlpine, a triple handicap to this large portion of the supply. There appears little doubt that the costly delays and difficulties at these three old installations add significantly to the cost of industrial fuels and of motor fuels at filling stations throughout the upper Ohio Basin.



Oil refineries are located with access to water, rail and highways.

The Winfield Project and the Charleston, West Virginia, Area

The Kanawha River, flowing by the capital city of Charleston in central West Virginia and discharging into the Ohio a short distance upstream from Gallipolis, is of special concern because of the inadequate and outmoded locks at Winfield, a short distance above the mouth. The twin locks at Winfield, only 360 feet long, are totally out of phase with even the inadequate 600-foot lock at Gallipolis, not to mention the 1,200-foot standard elsewhere on the Ohio, and can normally transit only one barge at a time. Practically every normal vessel movement is stalled at Winfield for five or six hours laboriously locking through one barge at a time at a cost of some $300 or more an hour. The effect is that of a partial severing of the Kanawha Valley and the Port of Charleston from the Mississippi and Ohio River Systems.

In 1986, 8.2 million barrels of gasoline and distillate fuel oil, with wholesale value of about $314.8 million, were delivered into the Kanawha Valley via the Winfield Locks. The gasoline alone was equivalent to 32.4 percent of the entire state's consumption that year.

Most of these fuels (84.6 percent) originated in the Huntington District of Ohio and had to traverse the congested locks at both Gallipolis and Winfield. The smaller amounts from more distant sources should be assessed in the light of the multiple barriers between those sources and West Virginia. Only 14.4 percent came from the Gulf Coast and the lower Ohio Valley. The portion originating on the Gulf had to contend in succession with the obsolete works at Olmsted, McAlpine, Gallipolis, and finally, Winfield. There appears little doubt that the modernization of the navigation works at all these sites will open up a much more abundant supply of petroleum fuels for the Kanawha Valley, not only, as at present, from the Huntington District, but even more, with the removal of multiple barriers, from Gulf Coast, Mississippi Valley, and lower Ohio Valley origins. West Virginia thus has a distinctively high stake in the entire modernization program of the Ohio River System.

DINAMO ECONOMIC REPORT

March 1990

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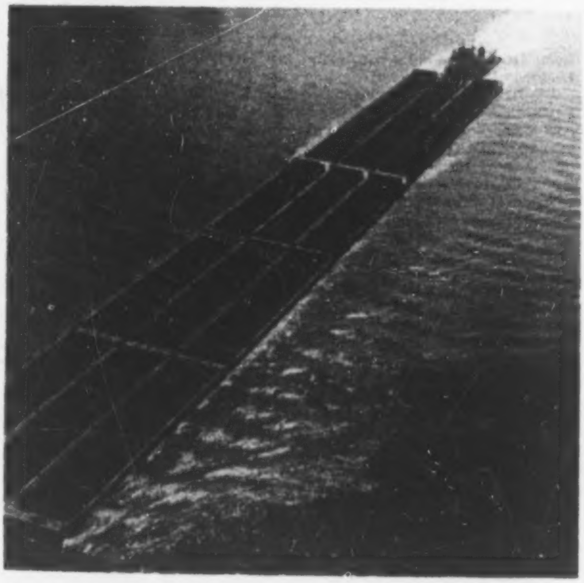
Relieving Waterways Bottlenecks: Importance to the Coal Industry of Ohio

After delays of many years, action is now being taken to relieve serious bottlenecks on the Ohio River navigation system. Other modes of transportation are up to date. Since World War II, major railroads serving Ohio have been modernized to computer-age standards. The New National Network for Trucks, 8,192 miles of it within the state, links Ohio's modern highways to all regions of the continent. But, the Ohio River System has been half forgotten. Modernization was well under way until the mid-1970's, when all progress came to a halt. Serious bottlenecks persist as lock-and-dam structures built in the days of the steam locomotive and the Model-T Ford continue to hamper Ohio's access to favorable markets and sources of supply.

Low Cost of River Transportation

Efficient transportation on the inland rivers is important to Ohio's economy. River transport specializes in bulk commodities moved in large tonnages—coal, gasoline, fuel oil, chemicals, building materials, iron and steel, farm crops, and the like. For this kind of freight, waterway cost is incomparably low. In 1986 (the latest year reported), the U.S. inland rivers carried almost 16 per cent of the nation's freight. But, they charged only 1.1 percent of the nation's freight bill.

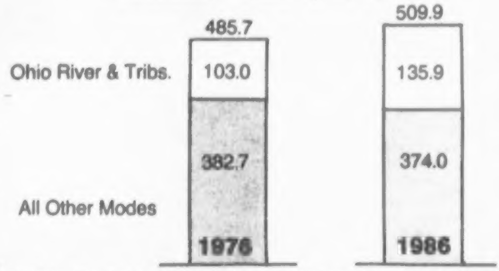
Ohio shares in this saving by virtue of the state's 445-mile frontage on the Ohio River. This gives the state low-cost access to sources and markets throughout the system, including the cities of Pittsburgh, Charleston, Huntington, Louisville, Evansville, Nashville (on the Cumberland), and all Tennessee River ports. In addition, because of the Ohio's confluence with the Mississippi River at Cairo, Illinois, the river provides a through waterway routing to St. Louis, Chicago, and the Twin Cities on the north, to Kansas City and Tulsa on the west, and on the south to the entire lower Mississippi Valley and the Gulf Coast, from Florida to the Mexican border.



Over 19,700,000 tons of Ohio coal was shipped through obsolete lock and dam structures via the Ohio River in 1986. Its mine value was estimated to be $646,159,000.

Ohio Coal's Dependence on Water Transportation

Chart I.
Coal Production - Ohio River Basin Coal-Producing Districts
And
Coal Shipments on the Ohio River and Tributaries
1976 and 1986 (Millions of Tons)



[1] *The Ohio Basin coal producing districts are: #2 (western Pa.), #3 and #6 (northern W. Va.), #4 (Ohio), #7 (Va. & southeastern W. Va.), #8 (southern W. Va., eastern Ky., & eastern Tenn.), #9 (western Ky.), #10 (Ill.), #11 (Ind.), and #13 (southeastern Tenn., Ala., & Ga.).*

[2] *"Coal Shipments on the Ohio River and Tributaries" include all-river, rail-river, and truck-river.*

[3] *"All Other Modes" include all-rail, all-truck, and local consumption.*

Sources: U.S. Department of Energy
U.S. Department of the Army, Corps of Engineers

Apart from construction income, the longer-term benefits to the Ohio economy will be those consequent on heightened efficiency of the waterway system, accruing via the shipping and receiving industries to consumers, workers, and investors throughout the state. The largest volume commodity shipped to the Ohio River is coal, and the river is more important to Ohio's coal industry than the railroads. According to the U.S. Department of Energy, in 1986, Ohio shipped one and one-half times as much coal by river as by rail.

River Transportation as a Growth Factor in Coal Production

The National Coal Association projects the total demand for U.S. coal, domestic and export, for the year 2000 at 1,181 million tons. (this is the Association's "moderate" projection.) Whether or not Ohio's coal industry shares in this favorable outlook depends mainly on the navigation improvement program. From 1976 to 1986, the total production of the mining districts of the Ohio River Basin increased by 24.2 million tons. This was entirely an increase in shipments on the rivers. Indeed, the river shipments actually increased by more than the over-all rise in production (32.9 million tons), while shipments by other modes declined. If this relationship continues for the remainder of the century, the entire outlook for the region's coal industry rests on the programmed improvement of the Ohio River navigation system. The 1976-1986 relationships appear in Chart I.

River Transport as a Restraint on Railroad Rates

Waterway competition holds railroad rates in check. During the 1980's, one of the major concerns voiced by coal executives has been the high rates imposed by railroads on shipments for which the rails have little significant competition. As an offset to this problem, in December, 1988, two major railroads, CSX Transportation and the Norfolk Southern Corporation, rescinded programmed rate increases on Appalachian coal carried to Atlantic ports for export. Waterway competition was a clear incentive for this rescission. Appalachian coal has an alternative outlet. Shippers can move the coal by barge down the Ohio and Mississippi Rivers for export via the New Orleans area. This influence bears on rail rates on other movements as well.

In the 1970's only about a million tons of coal were exported yearly via New Orleans. But, after 1980 the riverborne export movement rose irregularly to 9.4 million tons in 1986. There appears little doubt that the two railroads set their Atlantic coast export rates with an eye on the waterway alternative. Shippers by rail thus have a substantial stake in the modernized river system.

Because of its low cost, waterway transport carries off the regional surplus to distant coal markets beyond reach by rail or truck, keeping coal competitive in these markets while sustaining values at the mine. In 1986, the river system carried 22.7 million tons of Ohio Basin coal to the Gulf Coast, some for export, but most for coastal utilities.

The "Multiplier" Community Impact

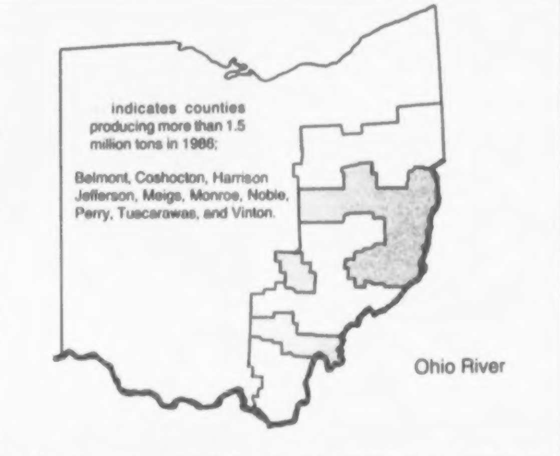
The benefits of riverborne coal are also pervasive in the number and extent of the communities affected. *There are 24 coal-producing counties in Ohio, all in the eastern, or Appalachian, area.* The 1980 population of these 24 counties was just over 1.7 million. The importance of coal mine revenues in the Appalachian counties can hardly be overstated.

Far from being confined to the mining personnel, coal mine revenues exert an impact on all vari-

(continued on page 3)

The "Multiplier" Community Impact

(continued from page 2)


indicates counties producing more than 1.5 million tons in 1986;
Belmont, Coshocton, Harrison Jefferson, Meigs, Monroe, Noble, Perry, Tuscarawas, and Vinton.
Ohio River

The 24 coal-producing counties in Ohio produced 36.2 million tons of coal in 1986. Of this amount 19.7 million tons moved to market on the Ohio River and its navigable tributaries. In the ten Ohio counties producing over 1.5 million tons in 1986, the riverborne coal alone represented direct and indirect income of $5,675 per household.

eties of local enterprise and public services. The initial income, of course, flows to those who contribute, directly or indirectly, to the production and shipment of the coal: mine employees, proprietors, investors and mine suppliers. Most of this is respent locally, creating additional income for enterprises such as retail stores and professional services and revenues for public agencies (schools, safety forces, health services, street maintenance, etc.). The local impact of their respending (commonly called the "multiplier") is generally estimated as being about equivalent to the initial income, that is, a doubling of such income. The prosperity of the coal industry thus permeates every feature of community life in the mining communities.

Ohio coal shipped on the rivers in 1986 had a value at the mine of $646.2 million. Studies in Appalachian mining area indicate that about $409.7 million of this was local income. This includes payrolls, proprietor's income, supplies, maintenance, fuels, and other local purchases by the mining enterprises. Respending at a multiplier of two indicates total income from riverborne coal, direct and indirect, to the 1.7 million people of about $800 million.

In individual counties, the local impact is much greater. In some localities coal mining is the dominant economic activity. Taking, for example, the ten Ohio counties producing over 1.5 million tons each in 1986, the riverborne coal alone represented direct and indirect income of over $5,675 per household.

Recognizing that the industry's growth over the past ten years has been entirely a growth in marketing via rivers, it is clear that the consequence has been a sustained strength of wholesome community life and well-being in the principal coal-producing counties of Ohio and that their share in the projected growth of the coal industry into the Twenty-First Century is directly dependent on a modernized river navigation system.

TABLE I

TONNAGES AND VALUES OF OHIO COAL SHIPPED VIA RESPECTIVE LOCKAGE SITES ON THE OHIO RIVER AND ITS TRIBUTARIES 1986

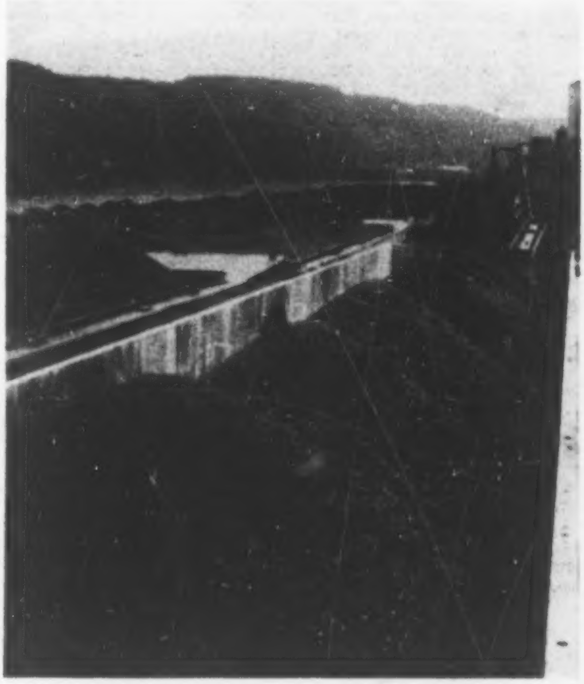
Via Programmed Improvement Sites

Lockage Sites	TONS	Mine Values
Gallipolis Only	4,732,000	$155,210,000
Gallipolis, McAlpine, & Olmsted	125,00	4,100,000
Gallipolis, McAlpine, & Kentucky	2,638,000	86,526,000
Gallipolis & McAlpine	49,000	1,607,00
McAlpine Only	526,000	17,253,000
McAlpine & Olmsted	1,714,000	56,219,000
McAlpine & Kentucky	1,303,000	42,738,000
TOTALS VIA PROGRAMMED SITES	11,087,000	$363,653,000
Via Modern Locks and Open River	8,613,000	282,506,000
Total Riverborne Shipments of Ohio Coal	19,700,000	646,159,000

Coal Tonnages Via Respective Lockage Sites

Something of the bearing of the river modernization program on the Ohio coal industry is indicated in Table I, representing tonnages and values of Ohio which, in 1986, transited respective sites programmed for improvement. Large as they are, these figures understate the impact. Waterway carriage has been growing since 1986. Furthermore, the figures do not show the substantial revenues to railroads and trucking firms of the large rail-river and truck-river movements. In 1986, in the mining districts of the Ohio Basin, 37.0 percent of the river-borne coal reached the barge-loading terminals by rail and 37.4 percent by truck.

With the passage of time, the need for updating the Ohio River navigation system to modern standards becomes progressively more urgent. These present deteriorated works are subject to shut-downs for repairs with increasing frequency and duration, obstructing traffic, raising costs, and disrupting delivery and production schedules in the shipping and receiving industries. The affected industries include electric power, chemicals, iron and steel, refining and distribution of gasoline and fuel oil, and agriculture. Coal, as the largest waterway user, is the most concerned. Replacement projects require from five to ten years for completion, and every year heightens the urgency for relief. Expeditious progress is essential.



The age and obsolence of the Ohio River Navigation System facilities affects the delivery and production schedules in the shipping and receiving industries, particularly coal.

Marvin Barloon

Marvin J. Barloon is Carlton Professor Emeritus of Economics at Case Western Reserve University where he specializes in transportation by water. He has appeared as an expert witness on numerous occasions before committees of the U.S. Congress and Senate. For some 30 years he was economic consultant to the Ohio Valley Improvement Association, the National Waterways Conference, and state governments. His writings have frequently appeared in professional journals and in general magazines, including *Harper's*, the *Reader's Digest*, and the *New York Times Magazine*.

Barloon's reports on the coal industry of Kentucky and West Virginia and on the distribution of petroleum products via the Ohio River System appeared in the August and October, 1989, issues of the DINAMO ECONOMIC REPORT.

STATEMENT OF MICHAEL J. TOOHEY
BEFORE THE SUBCOMMITTEE ON WATER RESOURCES
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
U. S. HOUSE OF REPRESENTATIVES
MARCH 7, 1990

Mr. Chairman, Mr. Stangeland and members of the Subcommittee, I appreciate the opportunity to appear today in support of authorizations for inland waterway projects.

As you may know, Ashland Oil, Inc. is a diversified energy company with operations in petroleum refining, transportation and wholesale marketing; retail gasoline marketing; motor oil and lubricant marketing; chemicals; construction; engineering; and oil and gas exploration and production. Ashland also has equity positions in Ashland Coal, Inc. and Arch Mineral Corporation. Based in Ashland, Kentucky, the company employs 37,800 people worldwide and is one of the largest industrial corporations in America.

Nearly three years ago some of the members of this distinguished committee toured the McAlpine Locks aboard the M/V **ASHLAND**, following ceremonies renaming the Louisville Customs House and Courthouse for Congressman Gene Snyder. Those of you who were there will recall how difficult it is to transverse this section of the Ohio river. The McAlpine replacement project will not only improve navigation safety, but also greatly ease the congestion on this segment of the waterway.

As you have already heard in the testimony that preceded me, delays at this facility are costing our economy and these delays are expected to worsen.

As a major user of the inland waterways Ashland strongly supports upgrading the locks at McAlpine with an additional 1200 foot lock and we will contribute to the cost of the project through the inland waterway fuel tax.

We are mindful that the Chief of Engineers has not issued his final report on this project. However, if as expected, the report is finalized this summer and the subcommittee has not acted on the authorization, then there can be no action taken for two years on this vital project. We urge the Members of this Subcommittee to include the McAlpine authorization in this year's initiative so that work can proceed expeditiously and in a timely fashion.

Thank you for your consideration.

TESTIMONY OF WILLIAM J. HAHNE, USS, A DIVISION OF USX CORP.
BEFORE THE HOUSE PUBLIC WORKS AND TRANSPORTATION
SUBCOMMITTEE OF WATER RESOURCES
MARCH 7, 1990

"IMPORTANCE OF THE RIVERS TO THE STEEL INDUSTRY"

Dear Mr. Chairman:

I am William J. Hahne, Manager-Traffic, Raw Materials, for USS, a division of USX Corporation. I have the responsibility for arranging the transportation of all inbound raw materials (i.e. coal, coke, iron ore, and limestone) for USS' steelmaking facilities.

I am here today to urge conditional authorization subject to a Final Report of the Chief of Engineers of improvements to Locks and Dams 2, 3, and 4 on the Monongahela River. The Ohio and Monongahela Rivers are particularly important to USS. I have attached a presentation which describes the importance of the rivers to our steelmaking operations. USS' Clairton Works, at Mile Point 19 on the Monongahela River, with its access to lower-cost river transportation, has prevailed as the principal coking source for USS' and USS/Kobe's ironmaking facilities located in Fairfield, AL, Lorain, OH, Fairless, PA, Pittsburgh, PA, and Gary, IN. Clairton processes approximately 6.2 million net tons of metallurgical coal per year, producing 4.6 million tons of coke. Clairton Works has invested $34,000,000 in recent years in modernization and increased capacity. There is no practical method other than river transportation through Locks, 2, 3, and 4 from Ohio River and Monongahela River sources for Clairton Works to receive and handle the required coal. Increased costs associated with any other alternative handling method would likely force USS to look to off-shore sources for coke at significantly higher delivered costs. I have recently viewed Locks 2, 3, and 4 several times with the Corps of Engineers and am convinced, as they are, that conditiional authorization is necessary to begin the much-needed work as soon as possible.

William J. Hahne

TESTIMONY OF WILLIAM J. HAHNE, USS, A DIVISION OF USX CORP.
BEFORE THE HOUSE PUBLIC WORKS AND TRANSPORTATION SUBCOMMITTEE OF WATER RESOURCES
MARCH 7, 1990

"IMPORTANCE OF THE RIVERS TO THE STEEL INDUSTRY"

HISTORICALLY, STEEL MILLS IN THIS COUNTRY, INCLUDING USS, INTEGRATED BOTH THEIR IRON MAKING AND COKE MAKING PROCESSES INTO SINGLE PLANT LOCATIONS. HOWEVER, AT USS, REDUCED COKE REQUIREMENTS, RESULTING FROM THE RATIONALIZATION OF STEEL CAPACITY SINCE 1980, MOVED THE CORPORATION TO CENTRALIZE COKING OPERATIONS FOR OUR EASTERN AND SOUTHERN MILLS AT A SINGLE LOCATION.

COKE FROM COAL

THE CHEMICAL COMPOUNDS MAKING UP COAL, LIKE MOST OF THOSE IN ANIMAL AND VEGETABLE LIFE, ARE UNSTABLE WHEN SUBJECTED TO A HIGH DEGREE OF HEAT OR THERMAL TREATMENT.

THERE ARE TWO METHODS FOR MANUFACTURING METALLURGICAL COKE, KNOWN AS THE **BEEHIVE PROCESS**, AND THE **BY-PRODUCT** OR **RETORT PROCESS**. CLAIRTON UTILIZES THE BY-PRODUCT METHOD. IN THIS METHOD, AIR IS EXCLUDED FROM THE COKING CHAMBERS, AND THE NECESSARY HEAT FOR DISTILLATION IS SUPPLIED FROM EXTERNAL COMBUSTION OF SOME OF THE GAS RECOVERED FROM THE COKING PROCESS. WHEN THE PRODUCTION OF COKE IS ACCOMPLISHED IN MODERN BY-PRODUCT COKE OVENS WITH EQUIPMENT FOR RECOVERING THE COAL CHEMICALS, ONE NET TON OF COKING COAL IN TYPICAL AMERICAN PRACTICE YIELDS ABOUT THE FOLLOWING

PROPORTIONS OF THE SEVERAL COAL CHEMICALS AND COKE, DEPENDING UPON THE TYPE OF COAL CARBONIZED, CARBONIZATION TEMPERATURE AND METHOD OF COAL-CHEMICAL RECOVERY:

BLAST-FURNACE COKE	1,200-1,400 LB.
COKE BREEZE	100-200 LB.
COKE-OVEN GAS	9,500-11,500 CU. FT.
TAR	8-12 GAL.
AMMONIUM SULPHATE	20-28 LB.
AMMONIA LIQUOR	15-35 GAL.
LIGHT OIL	2.5-4 GAL.

BLAST FURNACE COKE IS THE PRIMARY PRODUCT AND IS USED IN THE PRODUCTION OF IRON IN BLAST FURNACES. THE IRON (HOT METAL) IS SUBSEQUENTLY USED IN THE BOP SHOPS OR OPEN HEARTHS TO MAKE STEEL. CLAIRTON'S COKE OVENS HAVE THE CAPACITY TO PRODUCE ABOUT 4.6 MILLION TONS OF COKE ANNUALLY FROM ABOUT 6.2 MILLION TONS OF COAL.

CLAIRTON WORKS

CLAIRTON WORKS, AT MILE POINT 19 ABOVE LOCK 2 ON THE MONONGAHELA RIVER, WITH ITS ACCESS TO LOWER COST RIVER TRANSPORTATION FOR THE COALS UTILIZED IN THE COKE MAKING PROCESS, HAS PREVAILED AS THE PRINCIPAL COKING SOURCE FOR USS AND USS/KOBE IRON MAKING FACILITIES LOCATED IN FAIRFIELD, AL; LORAIN, OH; FAIRLESS, PA; GARY, IN; AND MON VALLEY WORKS HERE IN PITTSBURGH. CLAIRTON WORKS IS THE PRINCIPAL PRODUCER OF METALLURGICAL COKE IN USS AND IS ONE OF THE

LARGEST COKE PLANTS IN THE WORLD. OVER 15,000 TONS OF COAL ARE PROCESSED DAILY TO PRODUCE ABOUT 11,000 TONS OF COKE. THERE ARE TEN OPERATING BATTERIES CONSISTING OF 694 OVENS. THERE ARE TWO ADDITIONAL BATTERY UNITS WHICH WERE BROUGHT ON LINE LAST OCTOBER AT A REHABILITATION COST OF $19 MILLION, INCREASING COKE PRODUCTION TO 12,600 TONS/DAY AND COAL REQUIREMENTS TO 17,200 TONS/DAY. CONSISTENT WITH THIS DECISION AND INDICATIVE OF USS' COMMITMENT AND DEPENDENCY UPON WATER TRANSPORTATION, CAPITAL EXPENDITURES OF OVER $15 MILLION HAVE BEEN SPENT OR COMMITTED TO MODERNIZING COAL BARGE UNLOADING FACILITIES AT CLAIRTON WORKS. THIS IS IN ADDITION TO THE $19 MILLION PREVIOUSLY MENTIONED FOR TWO ADDITIONAL BATTERIES. BOTH HIGH AND LOW VOLATILE COALS ARE UTILIZED IN THE COKE MAKING PROCESS. LOW VOL COAL IS HIGH IN CARBON AND IMPARTS STRENGTH TO THE COKE. DUE TO ITS EXPANSION CHARACTERISTICS, HOWEVER, THE USE OF LOW VOL COAL ALONE WOULD SPLIT THE WALLS OF THE COKE OVENS. HIGH VOL COAL, WHICH SHRINKS IN THE OVENS, THEREFORE, IS ALSO USED. OUR TYPICAL BLEND CALLS FOR 25 PERCENT LOW VOL AND 75 PERCENT HIGH VOL.

HIGH VOL COAL

IN 1989, CLAIRTON WORKS CONSUMED APPROXIMATELY 4.2 MILLION NET TONS OF HIGH VOL COAL. HIGH VOL COAL FOR CLAIRTON WORKS IS PRESENTLY RECEIVED FROM A VARIETY OF SOURCES, THREE ON THE MON RIVER IN PENNSYLVANIA PROVIDING 3.6 MILLION TONS, WITH THE BALANCE ORIGINATING IN WEST VIRGINIA AND VIRGINIA. THE TWO LARGEST SUPPLIERS ARE:

MAPLE CREEK

USS MINING CO. INC. (USM) OPERATES THE MAPLE CREEK MINE AND PREPARATION PLANT WHICH ARE LOCATED AT NEW EAGLE, PA, MILE POINT 31 ON THE MON VALLEY IN THE LOCK AND DAM NUMBER 3 POOL. DUE TO THE LOCK SIZE, STANDARD 950-TON BARGES AND STUMBO 1,150-TON BARGES ARE USED IN THIS SERVICE. IN 1989, USS SHIPPED APPROXIMATELY 1.8 MILLION TONS OF HIGH VOL COAL FROM MAPLE CREEK TO CLAIRTON WORKS. USM ALSO ANTICIPATES SHIPPING IN EXCESS OF ONE HALF MILLION TONS OF MAPLE CREEK COAL TO COMMERCIAL ACCOUNTS LOCATED ON THE UPPER OHIO RIVER, SUCH AS SHENANGO LOCATED AT NEVILLE ISLAND, PA.

CONSOL COAL - ROBENA

USS PURCHASED APPROXIMATELY 1.3 MILLION TONS OF HIGH VOL COAL IN "89" FROM CONSOLIDATION COAL'S ROBENA PREPARATION PLANT AT MILE POINT 80 ON THE MON RIVER IN THE MAXWELL POOL. AS WITH USS SHIPMENTS FROM MAPLE CREEK, CONSOL SHIPS ITS COAL TO CLAIRTON WORKS IN STANDARD 950-TON BARGES.

USS ALSO RECEIVES HIGH VOL COAL FROM MINES IN WEST VIRGINIA, SHIPPED THROUGH KENOVA LOCATED AT MILE POINT 312 ON THE OHIO RIVER. OUR 1989 BUSINESS PLAN ANTICIPATES THE MOVEMENT OF 600,000 NET TONS TO CLAIRTON WORKS. STANDARD AND STUMBO BARGES LOADED AT KENOVA MOVE IN 15-BARGE OHIO RIVER TOWS FOR MOVEMENT ON TO CLAIRTON WORKS.

CUMBERLAND

FURTHER UP THE MON RIVER IN THE MAXWELL POOL, AT MILE POINT 81, USM CUMBERLAND MINE PRODUCES AND SHIPS OVER 2.1 MILLION TONS OF COAL PER YEAR. MUCH OF THIS COAL MOVES VIA BARGE FROM CUMBERLAND TO THE UNION RAILROAD'S COAL TRANSFER TERMINAL LOCATED ON THE MON RIVER AT DUQUESNE, PA, MILE POINT 12 IN THE LOCK 2 POOL. THE COAL THEN MOVES VIA RAIL TO UTILITY PLANTS IN THE NORTHEAST OR TO CONNEAUT, OH, WHERE IT IS LOADED ABOARD LAKE VESSELS FOR MOVEMENT TO ITS FINAL DESTINATION. USM HAS ALSO RECENTLY BEEN SHIPPING LARGE VOLUMES OF COAL FOR EXPORT MOVING BY BARGE TO NEW ORLEANS.

LOW VOL COAL

PINNACLE

PENNSYLVANIA SOURCES OF LOW VOL MET COAL HAVE BEEN LIMITED. USS, THEREFORE, RECEIVES ITS LOW VOL COAL FROM SOUTHWESTERN WEST VIRGINIA NEAR BLUEFIELD. COAL IS MOVED VIA RAIL 140 MILES TO KENOVA, WV AT MILE POINT 312 IN THE GREENUP POOL OF THE OHIO RIVER. IT IS THEN TRANSFERRED INTO JUMBO 1,500-TON BARGES FOR MOVEMENT TO CLAIRTON WORKS. 1989 LOW VOL COAL CONSUMPTION AT CLAIRTON WORKS WAS OVER 1.5 MILLION TONS.

THE LONG-TERM VIABILITY OF CLAIRTON WORKS AS THE COKE SOURCE FOR USS AND USS-AFFILIATED MILLS LOCATED IN THE EAST AND SOUTH, TO A GREAT EXTENT DEPENDS UPON NOT ONLY THE ECONOMICS OF RIVER

TRANSPORTATION, BUT DEPENDABLE TRANSIT TIMES THAT CAN ONLY BE ACHIEVED THROUGH AN ONGOING COMMITMENT TOWARDS MAINTAINING AND IMPROVING LOCK AND DAM FACILITIES ON THE UPPER RIVER SYSTEMS OF THE OHIO AND MON RIVERS.

TO CITE ONE EXAMPLE OF THE IMPORTANCE OF DEPENDABLE RIVER TRANSIT TIMES, PERHAPS PREDICTABLE TRANSIT TIMES IS A MORE ACCURATE TERM, ONE MUST LOOK AT THE EFFORTS THAT USS HAS EMPLOYED IN ITS RELENTLESS EFFORT TO IMPROVE ITS COMPETITIVENESS IN THE WORLD STEEL MARKET OF EXCESS CAPACITY.

I AM CERTAIN THAT YOU ALL ARE FAMILIAR WITH THE CONCEPT OF "JUST IN TIME" INVENTORY COST CONTROL. ALTHOUGH IT IS MORE COMMONLY ASSOCIATED WITH THE AUTOMOTIVE INDUSTRY, WE TOO HAVE HAD TO INCORPORATE THE "JUST IN TIME" CONCEPT TO IMPROVE COAL, COKE, AND ORE INVENTORY CARRYING COSTS. IN PAST YEARS, IT WAS NOT UNUSUAL TO MAINTAIN 60 TO 90-DAY SAFETY STOCKS OF COAL AND OTHER RAW MATERIALS AT MILL LOCATIONS. WE CAN NO LONGER AFFORD SUCH A LUXURY. TODAY, OUR INVENTORY COAL IS PEGGED AT 15 DAYS' SUPPLY. THIS INCLUDES NOT ONLY SAFETY STOCKS AT PLANT LOCATIONS, BUT ALSO ALL INVENTORY IN THE TRANSPORTATION PIPELINE.

REGARDING LOW VOL COAL FROM PINNACLE, WV WITH AN AVERAGE TRANSIT TIME OF TEN DAYS FROM PREPARATION PLANT TO CLAIRTON WORKS, INVOLVING 3 DAYS ON RAIL, 2 DAYS AT THE TRANSFER TERMINALS, AND 5 DAYS ON THE RIVER, YOU CAN SEE THAT 2/3 OF OUR INVENTORY IS IN THE PIPELINE. ANY INTERRUPTION IN TRANSIT TIMES WOULD RESULT IN

SIGNIFICANT FREIGHT COST PENALTIES TO MOVE COAL TO CLAIRTON VIA DIRECT RAIL.

NO BARGE - NO CLAIRTON WORKS

THERE IS NO QUESTION THAT FREQUENT TRANSIT TIME DELAYS RELATING TO NAVIGATION ON THE OHIO AND MON RIVERS COULD RESULT IN A RECONSIDERATION OF CLAIRTON WORKS AS THE COKE SOURCE FOR OUR EASTERN AND SOUTHERN MILLS AND WOULD CERTAINLY PLACE THE WORK FORCE OF APPROXIMATELY 2,000 IN JEOPARDY.

TRANSPORTATION COST INCREASES ASSOCIATED WITH THE BARGE TO RAIL DIVERSION OF ALL HIGH VOL COAL AND LOW VOL COAL TO CLAIRTON WORKS WOULD APPROACH $20 MILLION PER YEAR. CLAIRTON WORKS WOULD ALSO BE FACED WITH MAJOR CAPITAL EXPENDITURES TO CONSTRUCT HIGH-CAPACITY RAIL CAR UNLOADING FACILITIES. FACED WITH THESE EXPENSES, IT WOULD LIKELY BE MORE COST EFFECTIVE FOR THE CORPORATION TO LOOK TO OFF-SHORE SOURCES OF COKE SUPPLY FOR ITS EASTERN AND SOUTHERN IRON-PRODUCING FACILITIES.

OTHER RAW MATERIALS TO MON VALLEY WORKS

STEAM COAL

IN ADDITION TO METALLURGICAL COAL, CLAIRTON ALSO CONSUMES OVER 40,500 TONS OF STEAM COAL EACH YEAR, RECEIVED FROM VARIOUS MINES IN SOUTHWESTERN WEST VIRGINIA AND EASTERN KENTUCKY. THIS COAL IS

MOVED VIA RAIL TO TERMINALS IN GHENT, KY, MILE POINT 535 IN THE MCALPINE POOL OF THE OHIO; MAYSVILLE, KY, MILE POINT 406 IN THE MELDAHL POOL OF THE OHIO; AND CEREDO, WV, MILE POINT 314 IN THE GREENUP POOL OF THE OHIO RIVER, THEN VIA BARGE TO CLAIRTON.

ALLOYING AGENTS

IN ADDITION TO ORE, SEVERAL ALLOYS USED IN THE BASIC OXYGEN STEEL MAKING PROCESS ARE RECEIVED THROUGH GULF PORTS, AT WHICH POINT THEY ARE TRANSFERRED TO BARGE FOR MOVEMENT TO USS/KOBE AND MON VALLEY WORKS. MATERIALS DESTINED TO USS/KOBE ARE TRANSFERRED TO TRUCK AT TERMINALS LOCATED IN LIVERPOOL, OH.

THE FOLLOWING VOLUMES ARE ANTICIPATED TO BE CONSUMED AT LORAIN AND MON VALLEY WORKS IN 1989:

FERRO MANGANESE - 18,000 NT
MANGANESE ORE - 5,000 NT
HI CARBON CHROME - 4,500 NT
FERRO SILICA - 4,500 NT

STEEL BARGE SHIPMENTS

BARGE ASSUMES AN IMPORTANT ROLE IN THE OUTBOUND MOVEMENT OF FINISHED STEEL SHIPMENTS ORIGINATING FROM MON VALLEY WORKS ON THE MON RIVER, WITH 90,000 NET TONS SHIPPED IN 1988. THIS REPRESENTS 7% OF ALL STEEL TONNAGE ORIGINATING FROM MON VALLEY WORKS VIA ALL

MODES. IN 1989, MON VALLEY WORKS SHIPPED 100,000 TONS VIA BARGE WHICH WILL REPRESENT APPROXIMATELY 9% OF THIS YEAR'S TOTAL STEEL SHIPMENTS FROM THE MON VALLEY WORKS.

OUR MOST SIGNIFICANT BARGE MOVEMENTS OF STEEL PRODUCTS FROM THE PITTSBURGH DISTRICT INVOLVES CUT LENGTH AND COILED SHEETS VIA THE PORTS OF LOUISVILLE AND CHATTANOOGA, TN MOVING IN ROLL TOP COVERED EQUIPMENT. CONSIDERABLE TONNAGE MOVED VIA THIS ROUTE. IN ADDITION TO REDUCED FREIGHT COSTS, BARGE HAS BEEN THE PREFERRED MODE TO APPLIANCE PARK BECAUSE OF THE NEGLIGIBLE IN-TRANSIT DAMAGE AND CONDENSATION-RELATED CORROSION EXPERIENCED.

ARISTECH

ARITECH CHEMICALS CORPORATION, FORMERLY USS CHEMICALS DIVISION OF UNITED STATES STEEL, IS ALSO AN IMPORTANT CUSTOMER OF THE BARGE INDUSTRY, USING DEDICATED TANK BARGE EQUIPMENT TO ORIGINATE OR TERMINATE OVER 921,000 NET TONS OF CHEMICAL FEEDSTOCKS OR FINISHED PRODUCTS FOR TWO CHEMICAL FACILITIES ON THE OHIO RIVER AND ONE ON THE MON RIVER.

HAVERHILL, OH

ARISTECH'S HAVERHILL, OH FACILITY, LOCATED AT MILE POINT 336.5 IN THE GREENUP POOL OF THE OHIO RIVER, PRODUCES VARIOUS COMMODITY CHEMICALS, INCLUDING ANILINE, ACETONE, ALPHA METHYL STYRENE, BISPHENOL-A, AND PHENOL. THIS PLANT RECEIVED 475,000 NET TONS OF

CUMENE VIA BARGE AND SHIPS 148,000 NET TONS OF ACETONE AND 8,000 NET TONS OF ALPHA METHYL STYRENE VIA BARGE.

NEVILLE ISLAND

ARISTECH'S NEVILLE ISLAND FACILITY, LOCATED AT MILE POINT 5 IN THE EMSWORTH POOL OF THE OHIO RIVER, PRODUCES MALEIC ANHYDRIDE, PLASTICIZERS AND POLYESTER RESINS. PRINCIPLE BARGE RECEIPTS INCLUDE 82,600 NET TONS OF ALCOHOLS AND 13,500 NET TONS OF STYRENE FROM THE GULF. BARGE SHIPMENTS INCLUDE 11,200 NET TONS OF PLASTICIZERS.

TARBEN (CLAIRTON CHEMICALS)

ARISTECH'S TARBEN FACILITY, LOCATED AT CLAIRTON WORKS MILE POINT 20 IN THE LOCK 2 POOL OF THE MON RIVER, PRODUCES CREOSOTE AND ELECTRODE BINDER PITCH SHIPPING IN BARGES TO POINTS ON THE OHIO, ILLINOIS, AND MISSISSIPPI RIVERS.

DIVERSION OF ARISTECH'S BARGE TRAFFIC TO RAIL WOULD HAVE A DISASTROUS EFFECT UPON THEIR FUTURE PROFITABILITY. FREIGHT COSTS WOULD INCREASE SUBSTANTIALLY. FURTHERMORE, THE COST OF PURCHASING THE 300 RAIL TANK CARS NEEDED TO TRANSPORT THESE CHEMICAL FEEDSTOCKS WOULD BE IN EXCESS OF $15 MILLION.

STATEMENT OF
MARC GABOR, NATIONAL LEGISLATIVE REPRESENTATIVE
UNITED MINE WORKERS OF AMERICA

ON

WATER RESOURCES DEVELOPMENT
CORPS OF ENGINEERS

BEFORE THE

SUBCOMMITTEE ON WATER RESOURCES
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

MARCH 14, 1990

MR. CHAIRMAN, MR. STANGELAND, MEMBERS OF THE SUBCOMMITTEE:

MY NAME IS MARC GABOR AND I AM NATIONAL LEGISLATIVE REPRESENTATIVE FOR THE UNITED MINE WORKERS OF AMERICA. ON BEHALF OF THE 250,000 MEMBERS OF OUR UNION, I WANT TO THANK YOU FOR HOLDING THIS HEARING TODAY TO ADDRESS NOT ONLY ONE OF OUR NATION'S MOST PRESSING NEEDS, BUT ALSO WHAT IS LITERALLY THE LIFELINE OF THE COAL INDUSTRY--THE COUNTRY'S INLAND WATERWAY NAVIGATION SYSTEM. A VIABLE SYSTEM IS KEY TO CONTINUED EMPLOYMENT IN THE COAL FIELDS OF APPALACHIA AND THE MIDWEST, AS WELL AS FOR THE DOMESTIC AND INTERNATIONAL COAL MARKETS.

I CAN NOT STRESS STRONGLY ENOUGH THE IMPORTANCE OF THE LOCKS AND DAMS IN THE OHIO RIVER VALLEY TO THE CONTINUED VIBRANCY OF THE NATION'S COAL MINE COAL OPERATIONS. A CLEAR INDICATION OF OUR COMMITTMENT AND THE SIGNIFICANCE TO WHICH WE ATTACH THE NEED TO MODERNIZE THESE STRUCTURES, IS THAT UMWA PRESIDENT RICHARD TRUMKA IS PLEASED TO SERVE AS A MEMBER OF THE BOARD OF DIRECTORS OF DINAMO. AS YOU KNOW, THE SOLE REASON FOR DINAMO'S EXISTENCE IS TO WORK WITH YOU AND OTHER DECISION MAKERS AT ALL LEVELS OF GOVERNMENT TO HELP MAKE THESE NEEDED CAPITOL IMPROVEMENTS A REALITY. THIS EFFORT REPRESENTS LABOR AND MANAGEMENT WORKING TOGETHER.

SPECIFICALLY, TODAY THE UMW WANTS TO LEND ITS FULL SUPPORT TO THE RECOMMENDATIONS MADE IN THE DINAMO TESTIMONY TO AUTHORIZE MODERNIZATION OF MCALPINE LOCK AND DAM ON THE OHIO RIVER NEAR JEFFERSONVILLE, INDIANA AND LOUISVILLE, KENTUCKY;

LOCKS AND DAMS 2, 3, AND 4 ON THE MONONHAGELA RIVER IN WESTERN PENNSYLVANIA; AND MARMET LOCK AND DAM ON THE KANAWHA RIVER IN WEST VIRGINIA.

I WOULD LIKE TO DRAW THE COMMITTEES ATTENTION TO THE BROAD BI-PARTISAN SUPPORT FOR THESE PROJECTS SHOWN BY YOUR COLLEAGUES LAST WEEK AND THIS WEEK. THEIR PARTICIPATION UNDERSCORES THE CRITICAL NEED. I WOULD LIKE TO PUBLICLY THANK THEM ON THE RECORD ON BEHALF OF THE UMWA FOR THEIR CONTINUED SUPPORT.

ALTHOUGH NONE OF THESE PROJECTS HAS YET RECEIVED A FINAL REPORT OF THE CHIEF OF ENGINEERS, EACH IS AT A CRITICAL STAGE IN THE PLANNING PROCESS. MCALPINE, FOR EXAMPLE, IS PENDING AT THE BOARD OF REVIEW AND A FINAL REPORT IS EXPECTED BY THIS SUMMER. EACH OF THE PROJECTS WOULD BENEFIT BY COMPRESSING THE TIME REQUIRED FOR CONSTRUCTION IF THEY WERE INCLUDED IN THE 1990 WATER RESOURCE AUTHORIZATION BILL.

RECOGNIZING THE EXTRAORDINARY NATURE OF OUR REQUEST, YET ALSO REALIZING THE CRITICAL NEED FOR THESE PROJECTS AND THE FACT THAT THERE IS PRECEDENT, WE RESPECTFULLY URGE THE COMMITTEE TO GIVE ADVANCE AUTHORIZATION TO THESE FIVE PROJECTS ON THE OHIO RIVER SYSTEM.

THANK YOU MR. CHAIRMAN.

Mr. **Nowak**. I'd like to now call some of the members before us. The first on our list is Congressman Lee Hamilton, from Indiana.

Congressman, we will accept your statement in its expanded form and let you proceed as you desire.

TESTIMONY OF HON. LEE HAMILTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF INDIANA

Mr. **Hamilton**. Thank you very much, Mr. Chairman.

I see you've got a formidable agenda this afternoon. I'll be very brief. First, I just want to express my appreciation to you for the support you've given for the Ohio National Wildlife Conservation area in the past. As you know, you've helped appropriate money for land acquisition.

Secondly, I want to say that this interpretive center that I'm asking you to authorize in part, $1.5 million is our request to the Federal Government, really is a tremendously exciting project in this part of the country.

A large amount of private development is coming into that area now, hotels and restaurants and all kinds of improvements on the waterfront, and this interpretive center becomes a very key facility for us.

The next point I want to make is that it really genuinely is a unique area. It's a 400-million-year-old fossilized coral reef conservation area that is right in the heart of a great metropolitan center.

Louisville, Kentucky, of course, is the major city. Congress has already recognized this, it's designated that area, and this interpretive center becomes kind of the key facility for the whole operation.

It will serve as a great educational center, and it will also help keep some of the vandalism away that we're having problems with now.

People come onto the coral beds and chip away at it and make it an unsightly area in some respects, and we want to correct that if we can.

You'll see on the second page of my testimony that we're asking you to authorize $1.5 million, the State of Indiana is going to put a million dollars into it, the town of Clarksville is going to put over $125,000 into it, private money, over $600,000, overall it's going to be around $3.2 million, so it genuinely is a Federal, State, local, private kind of effort.

Local and State support is just unanimous for it, and I would urge your careful consideration and, if at all possible, your approval of this $1.5 million request for an interpretive center as a key element of an exciting project that is taking place there in the Ohio River Valley.

Thank you very much, Mr. Chairman and members of the committee. I thank you for your attention and your consideration of this request.

Mr. **Nowak**. Thank you very much, Congressman Hamilton. We have had an opportunity to look at this project, and it certainly is a unique resource.

You bring cost sharing of over 50 percent, which is welcomed, as you know, in this budgetary climate that we're in, and we would certainly look to move this forward with you, and if we have any questions, we'll certainly get back to you.

Let me turn to Arlan Stangeland for any remarks.

Mr. STANGELAND. Thank you, Mr. Chairman.

I want to thank you, too, Lee, and certainly give it every consideration. Are the other entities ready to move?

Mr. HAMILTON. They are ready to move. As a matter of fact, they're already moving, and I just want to get the Federal Government caught up with them.

Mr. STANGELAND. Okay. Thank you.

Mr. NOWAK. Thank you very much, and if we have further questions, we'll get them to you in writing.

Mr. HAMILTON. Thank you, sir.

[Mr. Hamilton's prepared statement follows:]

LEE H. HAMILTON
9TH DISTRICT, INDIANA

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THE HONORABLE LEE H. HAMILTON

Statement before the

House Public Works Committee

Subcommittee on Water Resources

March 14, 1990

Mr. Chairman and members of the committee. Thank you for providing me with an opportunity to discuss with you a proposal to authorize the Army Corps of Engineers to design and construct an interpretive center at the Falls of the Ohio National Wildlife Conservation Area on the Ohio River between Indiana and Kentucky. I am requesting your assistance today in authorizing this $1.5 million project which would be matched 50/50 by state, local, and private interests in Indiana.

The national wildlife conservation area at the Falls of the Ohio encompasses a 400 million-year-old fossilized coral reef. The reef is a unique feature of the earth's geologic record, as well as a significant prehistoric and historic site. The Falls are world-renowned for their abundance and variety of fossils, as well as for the area's rich diversity of bird and fish life. What makes the site unique is that the 1,400 acres of the Falls of the Ohio area are located in the center of a metropolitan area, directly across the Ohio River from Louisville, Kentucky. In 1981, Congress designated the Falls as a national wildlife conservation area, and authorized the Army Corps of Engineers to begin acquiring land at the site and to subsequently manage the area. Since then, the boundaries have been extended and authorized expenditures for land acquisition have been increased. Most recently, Congress appropriated $900,000 in fiscal year 1987 in land acquisition for the conservation area.

The authorizing legislation for the wildlife conservation area designates several purposes of the conservation area, including the provision of opportunities for scientific research, interpretive and environmental uses. Currently, no interpretive center exists to encourage such study or to control access to the fossil beds. Over the years, vandalism damaging the beds has been a problem. The local Town of Clarksville and the State of Indiana-- which has created a state park at the conservation area-- view the addition of an interpretive center as critical to protecting the site for future generations and attracting visitors to the Falls. While over 15,000 students visit the area each year, visitors could be increased to an estimated 100,000 each year with the creation of an interpretive center.

THIS STATIONERY PRINTED ON PAPER MADE OF RECYCLED FIBERS

I want to urge the committee to authorize the Army Corps of Engineers to design and construct an interpretive center within the Falls of the Ohio National Wildlife Conservation Area. Such a project would entail authorizing the Corps to acquire additional real estate sufficient to include the visitor center in the conservation area and to enter into an agreement with the Indiana Department of Natural Resources (DNR) to permit the DNR to operate and maintain such a facility upon its completion. The DNR, Clarksville, and the Clarksville Riverfront Foundation project a $1.5 million federal cost for the project, to be matched by the three parties. The DNR hopes to contribute $1 million previously appropriated by Indiana for the project; Clarksville would provide to the Corps the property (valued at $127,600) the town has purchased on which the facility would be built; and the Clarksville Riverfront Foundation would provide the $600,000 it has raised in a local fundraising campaign for the Falls site.

FALLS OF THE OHIO NATIONAL WILDLIFE CONSERVATION AREA
DESIGN AND CONSTRUCTION OF INTERPRETIVE CENTER
PROPOSED SOURCES OF FUNDING

Source	Amount	Activity
Federal Government	$1.5 million	Design and construction
State of Indiana	$1.0 million	Design and construction
Town of Clarksville	$127,600	Value of land to be provided to the Corps at site of facility
Clarksville Riverfront Foundation	$600,000	Design and construction
TOTAL Federal share	$1,500,000	
State/local match	$1,727,600	
Combined	$3,227,600	

This project is a high priority for the Indiana DNR and for the towns surrounding the Falls site. I want to be helpful to Indiana officials in their efforts to protect and promote this national wildlife conservation area, and I urge your approval of this $1.5 million authorization project.

I would be happy to answer any questions you may have.

Mr. **Nowak**. We'll have our next witness, Congressman Coyne, from Pennsylvania, who is at the witness table, and you may, again, proceed.

Your statement, of course, will be accepted in its totality.

MONONGAHELA RIVER, LOCKS AND DAMS 2, 3, AND 4

TESTIMONY OF HON. WILLIAM COYNE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF PENNSYLVANIA

Mr. **Coyne**. Thank you, Mr. Chairman.

I first of all want to thank you for the opportunity to make this brief statement in support of the earlier witnesses that addressed themselves to Locks 2, 3, and 4 on the Monongahela River and to back up the statement of Barry Palmer, who has worked so very closely with these projects, and to emphasize the acute nature of the proposed authorization.

Lock 2, particularly, on the Monongahela River was built in 1902, so there has been a lot of traffic and water go over the dam since then.

The need for reconstruction of all three locks, Lock 2, 3, and 4 on the Monongahela, is very important to the members of Congress from western Pennsylvania, and indeed to the people that live in the Pittsburgh region.

That's about all I have to testify about. I am going to submit this statement for the record to you in consideration of the time limits that you have here, and also I'd like to have unanimous consent, if I could, to insert in the record Congressman Gaydos' statement.

He would have liked to have made a statement but was unable to be here today.

Mr. **Nowak**. Without objection, so ordered.

[Mr. Gaydos' prepared statement follows:]

HON. JOSEPH M. GAYDOS

TESTIMONY BEFORE THE SUBCOMMITTEE ON WATER RESOURCES, COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION, MARCH 14, 1990 HEARING ON PROPOSED U.S. ARMY CORPS OF ENGINEERS WATER PROJECTS -- LOCKS AND DAMS 2, 3, AND 4 ON THE MONONGAHELA RIVER

MR. CHAIRMAN, AND SUBCOMMITTEE MEMBERS, I THANK YOU FOR GIVING ME THIS OPPORTUNITY TO APPEARBEFORE YOU ON WHAT IS A MOST CRITICAL ISSUE FOR WESTERN PENNSYLVANIA.

THE MONONGAHELA RIVER HAS BEEN, AND CONTINUES TO BE, A VITAL PART OF THE ECONOMIC AND SOCIAL WELL-BEING OF THE CITIES AND TOWNS ALONG ITS BANKS. THE RIVER PROVIDES AN IMPORTANT CONNECTION BETWEEN THE COAL FIELDS OF SOUTHWESTERN PENNSYLVANIA AND NORTHERN WEST VIRGINIA AND THE MAJOR ELECTRIC POWER GENERATING STATIONS, CHEMICAL PLANTS, AND PETROLEUM TERMINALS ALONG THE UPPER OHIO RIVER.

MORE SPECIFICALLY, LOCKS AND DAMS 2, 3, AND 4 ARE AMONG THE PRIMARY INLAND NAVIGATION FACILITIES THAT ARE LOCATED IN THOSE POOLS WHERE THE MAJOR STEEL-PRODUCING AND COKE-MAKING PLANTS OF THE MONONGAHELA VALLEY LIE ALONG THE RIVER.

OF SPECIAL IMPORTANCE IS THE COKE-MAKING FACILITY IN THE USX CLAIRTON WORKS, RIGHT IN THE HEART OF MY CONGRESSIONAL DISTRICT. THE CLAIRTON WORKS RECEIVES 13 MILLION TONS OF METALLURGICAL COAL ANNUALLY -- ALL BY WATER -- FOR THE PRODUCTION OF COKE, AN ESSENTIAL INGREDIENT IN THE PRODUCTION OF STEEL.

THE COKE PRODUCED IN THE CLAIRTON WORKS IS USED BY USX IN ITS OTHER STEEL MAKING FACILITIES IN ALABAMA, OHIO, INDIANA, AND PENNSYLVANIA. LOCK AND DAM 3 IS ABOUT ONE MILE UPRIVER FROM THE CLAIRTON WORKS AND PERFORMS AN IMPORTANT FUNCTION IN MOVING THE COAL TO THE PLANT AND THE COKE TO OTHER LOCATIONS.

THE CONDITION OF LOCKS AND DAMS 2, 3, AND 4 HAS A DIRECT BEARING NOT ONLY ON THE STEEL-MAKING OPERATIONS OF USX, BUT ALSO ON THE LIVES AND FORTUNES OF THE PEOPLE WHO WORK IN THOSE PLANTS AND WHOSE LIVELIHOODS DEPEND ON THE STABILITY OF THEM.

THE PEOPLE IN MY DISTRICT HAVE SUFFERED A GREAT DEAL IN RECENT YEARS AS THE STEEL INDUSTRY HAS BEEN BATTERED. EMPLOYMENT FELL BY ALMOST 75 PER CENT BETWEEN 1982 AND 1985. NOW, THE SITUATION HAS STABILIZED. TO MAINTAIN THAT STABILITY, THE MONONGAHELA RIVER MUST BE KEPT UP TO PAR.

AT LOCK AND DAM 2, THE DAM IS ALMOST 90 YEARS OLD. THERE IS CONCERN BY THE U.S. ARMY CORPS OF ENGINEERS ABOUT WHETHER THE DAM WILL STILL BE STANDING WHEN WE REACH THE NEW CENTURY IN 10 YEARS.

LOCK AND DAM 3 IS ABOUT 85 YEARS OF AGE AND I HAVE BEEN TOLD THAT ITS CONDITION IS OF CRISIS PROPORTIONS.

WE NEED HELP, MR. CHAIRMAN. WE NEED A CONDITIONAL AUTHORIZATION OF IMPROVEMENT OF THOSE LOCKS AND DAMS ON THE LOWER MONONGAHELA RIVER, SUBJECT TO THE FINAL REPORT OF THE CHIEF OF ENGINEERS.

A PRELIMINARY DRAFT REPORT FROM THE CORPS OF ENGINEERS WILL BE READY FOR OUR EVALUATION BY EARLY MAY OF THIS YEAR AND THE FINAL REPORT OUGHT TO BE READY BY THE SPRING OF 1991.

I DO NOT THINK WE CAN AFFORD TO WAIT UNTIL THE END OF THE NEXT LEGISLATIVE CYCLE IN 1992 TO BEGIN THE PROCESS OF AUTHORIZING CONSTRUCTION OF REPLACEMENT FACILITIES.

WE NEED TO EXPEDITE THESE IMPROVEMENTS ON THE LOWER MONONGAHELA RIVER, MR. CHAIRMAN. WE CANNOT WAIT UNTIL A DAM COLLAPSES FROM AGE; WE CANNOT WAIT IF WE WANT TO CONTINUE TO REBUILD THE ECONOMIC BASE OF AN AREA THAT HAS SUFFERED SEVERELY IN RECENT YEARS.

THANK YOU.

Mr. NOWAK. Let me just comment further that the proposal for these improvements really fits, I think, well within the Administration's new transportation policy, which, as you know, was announced by Secretary Skinner, and his analysis of where transportation improvements should be made went on and dwelled in great length as to the increase in productivity in transportation to make the U.S. competitive overseas.

I would assume that this factor will play a large role in looking at the total system and providing that kind of transportation network so that we can be competitive and start to reduce our trade deficit, which we're all very concerned about.

I want to thank you for your testimony, and certainly we'll be getting back to you as we make progress in this hearing.

Mr. COYNE. Thank you very much.

Mr. NOWAK. Let me turn to Arlan Stangeland.

Mr. STANGELAND. Thank you, Bill, and we'll be glad to work with you.

Mr. NOWAK. Thank you again.

[Mr. Coyne's prepared statement follows:]

STATEMENT OF THE HONORABLE WILLIAM J. COYNE

Mr. Chairman, there is a need in the Pittsburgh area for improvement of Locks and Dams 2, 3, and 4 on the Monongahela River. The problem with these locks and dams is so acute, that I am urging that you include an authorization for these projects in the 1990 Water Resources Development legislation.

Monongahela River Locks and Dam 2, as originally constructed, was build between 1902 and 1906. The Riverward Lock Chamber was reconstructed in 1951 with dimensions of 56' x 360', and the Landward Lock Chamber was reconstructed in 1953 with dimensions of 110' x 1,200', the standard width of locks on the Ohio River. The major problem at Locks and Dam 2 is the age, deterioration, and structural instability of the Dam. According the Corps of Engineers, Pittsburgh District, "The Dam is highly susceptible to failure." A new dam must be built by the turn of the century for two reasons: first, the possibility of a problem of crisis proportions must be prevented, and second, a permanent facility must be constructed to provide navigation and other benefits for the next century.

Monongahela River Locks and Dam 3 presents similar problems to those at the Locks and Dam 2 facility. Constructed between 1905 and 1907, the Locks at Locks and Dam 3 are the oldest and most heavily utilized in the Pittsburgh District. With this facility now 85 years old, the Corps of Engineerspersonnel in the Pittsburgh District have told me that the age, level of deterioration, and structural instability of Locks and Dam 3 are so poor that the Corps cannot predict whether the facility will slide, tip, or crumble into the river. Moreover, the locks are 56' x 720', so that the width of the Lock Chambers are only half those of the larger chamber at Locks and Dam 2.

Monongahela River Locks and Dam 4 was built in 1932, 58 years ago. While this facility faces similar kinds of deterioration and structural problems related to Locks and Dam 2 and Locks and Dam 3, the size of the lock chambers is 56' x 720' (the same as L/D 3). Up river at the Maxwell Lock and Dam, the main lock is 84' x 720'. The inconsistencies in lock sizes from Locks and Dam 3 to the Maxwell Lock and Dam strongly suggest that improvements at Locks and Dams 2, 3, and 4 require new locks with a minimum 110' width.

Mr. Chairman, I am concerned about what the Corps of Engineers is saying in their risk analysis of these facilities, because Pittsburgh area residents and industry obtain their water supplies from the pools created by these dams. In addition, water transportation interests move millions of tons of commodities, principally coal, petroleum, chemicals, and steel, along this stretch of the river. A failure of either the Dam at Locks and Dam 2 or Locks and Dam 3 on the Monongahela River would put at least two power plants - one owned by Duquesne Light Company and another by West Penn Power - and the USX Clairton Coke Works out of business for many months. And I am told that any extended loss of the pool, and hence the loss of navigation, could portend the loss of Pittsburgh's USX coke-making operation, which serves the USX steel production plants in Fairfield, Alabama; Fairless, Pennsylvania; Philadelphia; Lorain, Ohio; Gary, Indiana; and Pittsburgh. The only way that the power plants and the coke works in the Pittsburgh area can receive coal is by water.

Attached to my testimony is a copy of a memorandum, dated 21 November 1989, from the Lower Monongahela River Navigation Study Issue Resolution Conference involving Corps of Engineers officials from the Pittsburgh District level to the Washington, D.C., headquarters unit. Participating in the conference were representatives of DINAMO, the association for the development of inland navigation in America's Ohio Valley. Also enclosed are copies of a memorandum for the record and a project guidance memorandum, dated 19 January 1990 and 23 January 1990. These documents outline in depth the recommended course of action for lock and dam modernization in the affected river reaches of the lower Monongahela River. It appears now, Mr. Chairman, that the recommended plan will call for a new gated dam at Locks and Dam

2, raising Pool 2 by five feet. Additionally, it appears that the recommended plan will call for replacement of Locks and Dams 3 and 4 with a new modern facility somewhere between the two. The size of the new main Lock Chamber would be 110' x 720'. It now appears likely that these replacement actions will constitute the National Economic Development Plan (NED).

If this construction does not take place, Mr. Chairman, I am concerned by frightening possibilities for Pittsburgh, with a Dam at Lock and Dam 2, Locks and Dam 3 and Locks and Dam 4, so deteriorated, unstable, and obsolete that the chance of failure by the year 2000 is high. The Corps of Engineers will have a preliminary report out for your evaluation by early May, I am told, and the Corps will complete its public hearing process before the end of this fiscal year. But because of the nature of this potential problem and what it might mean for Pittsburgh's citizens and jobs, I urge authorization, subject to a final report of the Chief of Engineers, in this year's final bill. Thank you, Mr. Chairman.

Mr. NOWAK. I will now turn to Congressman Jim Traficant, a member of the committee from Ohio.

GREAT LAKES INLAND WATERWAY STUDY

TESTIMONY OF HON. JAMES TRAFICANT, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OHIO

Mr. TRAFICANT. Thank you, Mr. Chairman.

We had a study that was approved several years back to attempt to review an updated feasibility study of connecting the Beaver River north of Pittsburgh with Lake Erie——

Mr. NOWAK. Can we have order? If we can keep that door shut back there.

Mr. TRAFICANT. I'd appreciate that, because I want to clear this matter up before the committee today. The Administration did oppose it, the committee did support the re-study of it, it was authorized, and finally I had an appropriation of $1 million to start it.

However, the language that was written in was written in as a flood control project, which then forced complications upon the matter, calling for match that is not available for this particular project.

I am here today asking for an additional $750,000. The Army Corps of Engineers in Pittsburgh needs $750,000 more to complete the study, number one.

Number two, I want the language, and we'll be submitting a legislative vehicle that will, in fact, name this particular study exactly for what it is, a navigable waterway study, not a flood control project.

I'm not here today to debate those merits, we've already done that. I'm here today to take from this committee language that now changes it from what they're trying to throw it into a match and complicate it with a flood control project.

It is not for flood control. We have 25,000 miles of an inland navigable water system that falls 100 miles short of the Great Lakes Lake Erie.

Now, Bill Coyne was just in here talking about Locks 2, 3, and 4. That is definitely needed. I'm for that in Pittsburgh, but be advised that our great inland system stops in Pittsburgh.

Now, this project was almost passed by Congress in the late 1960s, and the railroads killed it. Now, I'm not here telling everybody I've got all the help in the world for it, but all we need now is, again, the Army of Corps Engineers in Pittsburgh is involved in this request for $750,000 to complete it and to get around all this mish-mash and political chicanery that it be changed from a flood control project to a navigable waterway project, which is exactly, truthfully what this is.

I want your help, I want your vote.

Mr. NOWAK. Thank you very much.

We on the committee are aware of the problem that this project has brought to not only Congressman Traficant, but to an awful lot of people in his district, as well as many, many others in Ohio, and this navigation aspect of the project should, I think, be determined once and forever to be just what this project is meant to be, and that is to move goods in the most productive manner.

I certainly will be looking forward to your language as it comes in and to pursuing this initiative with you.

Congressman Stangeland?

Mr. STANGELAND. Just one question. This $1 million you're speaking of, is that in the study now and is the study aimed at only flood control and not navigation?

Mr. TRAFICANT. No, it is really aimed at navigation and the moving of commodities, but it's being hung up with that technicality, and the Army Corps really wants to get on with this.

Mr. STANGELAND. Have some of the studies been done?

Mr. TRAFICANT. Well, I think they've used approximately $250,000, but they're now hung up on this match business because it's flood control, and they're not just studying this flood control, it's movement of commerce and commodities.

I need to get that taken care of, and I need an additional $750,000, even though I had originally had authorized $8 million, I'm trying to get another $750,000 now appropriated so that they could complete their first stage of that study that's approximately $2 million, and they support that, and it's prudent.

Mr. STANGELAND. No more questions.

Mr. NOWAK. If there are no other questions, once again we'll be looking forward for your insertions.

Mr. TRAFICANT. Thank you very much. I appreciate your support.

[Mr. Traficant's prepared statement follows:]

TESTIMONY SUBMITTED FOR THE SUBCOMMITTEE ON WATER RESOURCES HEARINGS ON PROPOSED AUTHORIZATRIONS FOR THE WATER RESOURCES DEVELOPMENT PROGRAM OF THE U.S. ARMY CORPS OF ENGINEERS

Washington, D.C.
March 14, 1990

By,

Congressman James A. Traficant, Jr.
312 Cannon House Office Building
United States House of Representatives

SUBCOMMITTEE ON WATER RESOURCES.

Mr. Chairman, I want first to thank you and the Members of the Sub-Committee for granting me the opportunity to testify on behalf of a feasibility study on the Great Lakes Inland Waterway, a project that would link Lake Erie to Pittsburgh.

In 1989 Congress appropriated $ 1,000,000 of the $ 2,000,000 needed to complete the feasibility study necessary to determine the viability of this important project. Of the $ 1,000,000 appropriated through Congress only $ 100,000 was received by the Army Corps of Engineers in Pittsburgh which is the division designated to do the actual study. The remaining $900,000 was kept in Washington, D.C. by the Army Corps and not directed to Pittsburgh for 1989 or 1990. The $ 900,000 has not yet been released because it was not approved by the various levels of Army Corps approval departments. Ultimately, the Chief of the Corps. and the Secretary of the Army decided to put these funds on hold until the Reconnaissance Phase of the feasibility study is completed. The Army Corps of Engineers will use the $ 250,000 appropriated for 1990 to complete the reconnaisance phase. However, while utilizing the $ 250,000 appropriated for 1990, the Army Corps will continue to hold the designated $ 900,000 - 1989 funds because the Waterway Act of 1986 requires that all projects falling under the category of "Flood Control" must include matching funds from an outside source. (The State of Ohio has shown preliminary support and interest.) While matching funds are an issue, money must be spent slowly and appropriations such as the $ 900,000 amount are witheld. The lack of funds released to the Army Corps in Pittsburgh is limiting their progress.

Because this project would be a "New" project, and not an improvement on an already existing waterway, the Army Corps has categorized the project as a "Flood Control Project" and not as a "Navigable Waterway Project". According to the Army Corps of Engineers, if the project were categorized as a "Navigable Waterway Project" then matching funds would not be necessary.

I believe that this project is indeed, purely a "Navigable Waterway Project" and should not be referred to as a "Flood Control Project". This is because:

1) The purpose of the Waterway is for the navigation of ships and boats. The intended purpose is not for flood control.
2) The Ohio river in Beaver, PA where the connection will be made is currently a navigable waterway and the proposed project would initiate an improvement on that already existing waterway.

I intend to update my legislation on the waterway by inserting that this project be categorized as a "Navigable Waterway" and not as a "Flood Control Project" subjecting the project to matching fund restrictions.

The Army Corps of Engineers in Pittsburgh have accomplish 2 goals to date with the $ 100,000 allotted from the $ 900,000 appropriated.

1) Contact local interest groups and sample local support.
2) Obtained the support of the state of Ohio and the Governor for continuing on with the feasibility study. The state of Ohio is the potential source for the 50/50 match. (However, it must be mentioned that a project of this size requiring a 50 % match from any state would be an enormous drain on the donor state's economy. This is why it is not preferrable to be restricted to the matching fund "Flood Control" category.)

Currently, the Army Corps of Engineers will be utilizing the $ 250,000 appropriated for this year to re-examine the 1965 feasibility study and compare and assess 1965 to 1990 with regard to tonnage/traffic estimates. Their mission with this aspect will be to forecast the amount of traffic that will develop if the project is completed. But, again this is a very preliminary stage. The Army-Corps in Pittsburgh is anxious to get this feasibility study underway however they feel somewhat limited by the slow income of funds. They definitively have stated that a solid feasibility study will require $ 2,000,000. To date they have been appropriated $1,250,000 but have received only $ 350,000. We have to complete a comprehensive feasibility study to determine where we stand. We can't complete a feasibility study unless we get the full $ 2,000,000 necessary.

I am here today to ask the Subcommittee to examine once again the many merits of this waterway proposal and to continue supporting the appropriation of funds necessary to complete the study. I am here today also to inform the Subcommittee on my intention to change the definition of the project from a "Flood Control Project" to a "Navigatable Waterway Project". I am also here to request your support for the $ 750,000 left yet to appropriate, to meet the $ 2,000,000 feasibility study requirement.

I have been promoting the Great Lakes Inland Waterway since coming to Washington. The idea of a canal linking Lake Erie to the Ohio River was first proposed by George Washington. It was pursued in earnest in the 1940's and 1950's by the late Congressman Michael Kirwan of Youngstown. Despite Kirwan's seniority on the House Public Works and Transportation Committee, the project had long standing local opposition -- the most damaging coming from the press. At that time, there was a Reader's Digest article against the proposed waterway, calling it a pork-barrel project. The article warned that if Congress built "Mike's Ditch," it would open the floodgates and a multi-million dollar power plant would be built in Alaska and Congress would authorize the construction of the billion dollar Tennessee-Tombigbee Waterway. Well, Alaska has its power plant and you know quite well Chairman Bevill that the Tennessee-Tombigbee opened in 1985. What happened to the Great Lakes Inland Waterway?

Unfortunately, the waterway never got beyond the planning stages and died in the late 1960's. Since the 1960's the economic climate in Northeast Ohio has changed dramatically. The justification for the waterway back in the 1960's was that it would provide a cheap and inexpensive way to ship Ohio steel north and south to varied markets. As stated earlier, the great steel mills are all but gone. So why try and revive the waterway?

In 1990 there are a myriad of economic factors that make a good case for building the waterway as a long-term economic revitalization project. From a national standpoint, the waterway represents the final link in America's vast inland waterway system. That system stops 120 miles short of Lake Erie. Without this vital link, our inland waterway system is like having a coast to coast super highway that stops short somewhere in the Nevada desert.

Mr. **Nowak**. We'll have our own Congressman Clement from Tennessee to testify and to present his formal testimony.

MILL CREEK BASIN, METRO NASHVILLE, TN

TESTIMONY OF HON. BOB CLEMENT, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TENNESSEE

Mr. **Clement**. Thank you, Mr. Chairman, and the worthy members of this great committee that I'm a part of.

Mr. Chairman, our next witness this afternoon will be my constituent from the 5th Congressional District in Tennessee, Ms. Teresa Couch.

Ms. Couch will speak in opposition to the U.S. Corps of Engineers' recommendation for flood protection works in the Mill Creek Basin in Nashville, Tennessee.

However, before Ms. Couch testifies, I'd like to say a few words on the U.S. Corps of Engineers' recommended proposal.

Mr. Chairman, the flooding problem along Mill Creek has plagued the residents and land owners for years. In fact, at least two of my predecessors in the House of Representatives have tried unsuccessfully to find a solution for this flooding problem.

As the third Congressman from the 5th Congressional District to deal with this issue, my goal is to resolve the issue once and for all.

Unfortunately, the proposal as submitted by the Corps of Engineers and approved by the Office of Management and Budget is not a solution I can support at this time.

The U.S. Corps of Engineers testified before the same subcommittee on March 1, 1990, that the metropolitan Government of Nashville and Davidson County has agreed to act as the non-Federal sponsor for this project.

I have a letter dated September 15, 1989, from the mayor of Nashville, the Honorable Bill Boner, to the Corps District Engineer, Colonel Paul King, which says we do not support any planning which would include a dam on Mill Creek.

Mr. Chairman, I request unanimous consent to enter this letter into the record.

Mr. **Nowak**. Without objection, so ordered.

[The letter from Mayor Boner to Colonel King follows:]

BILL BONER, MAYOR

OFFICE OF THE MAYOR
METROPOLITAN COURTHOUSE
NASHVILLE, TENNESSEE 37201

METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY

September 15, 1989

Colonel J. Paul King
District Engineer
U.S. Army Engineer District, Nashville
Post Office Box 1070
Nashville, Tennessee 37202-1070

Dear Colonel King,

As I have previously indicated to you both by letter and through conversation, the Metropolitan Government of Nashville-Davidson County is interested in obtaining assistance in the flooding problem on Mill Creek. In this regard, we request the Corps of Engineers proceed with planning, engineering and design to determine the practicability and current feasibility of obtaining such assistance.

However, we do not support any planning which would include a dam on Mill Creek. This alternative has never been a viable solution from my perspective. I believe the Corps of Engineers can develop a variety of plans short of a dam.

With this in mind, I look forward to a continued relationship in resolving this problem.

Sincerely,

Bill Boner
Mayor

BB:bf:jb

Mr. **Clement**. In addition, the U.S. Corps of Engineers state in their green book that local interests in the State of Tennessee support the project.

Mr. Chairman, not all groups support the project. I have two letters I'd like entered into the record. One is from the Tennessee Scenic River Association, and the other is from the Environmental Action Fund. Both organizations oppose the Corps of Engineers' recommended proposal.

Mr. Chairman, I ask unanimous consent to enter these two letters into the record.

Mr. **Nowak**. Without objection, so ordered.

[The letters from Tennessee Scenic River Association and the Environmental Action Fund follow:]

Tennessee Scenic Rivers Association, Inc [illegible]

Nashville, TN
March 9, 1990

Honorable Bob Clement
House of Representatives
325 Canon House Office Building
Washington, D.C. 20515

Re: Dam, Mill Creek
Davidson County, Tennessee
Bill SZ183 Senate

Dear Rep. Clement:

On behalf of the 1,600 members of the Tennessee Scenic Rivers Association, this letter is offered for your consideration.

1. The Mayor of Nashville and the Metropolitan Council have stated they will not consider any plans for a dam on Mill Creek or Seven Mile Creek and further have made this commitment to the U.S. Corps of Engineers in written correspondence dated September 15, 1989.
2. This bill would allow the further destruction of needed wetlands when impounded.
3. It would require the condemnation of private property to ultimately benefit commercial developments which are now located in the floodplain.

This letter, in its simplest form, are our associations' major concerns. It is our opinion that the city of Nashville would better spend its funds to improve its much needed sewer treatment plans.

Your consideration in this matter is greatly appreciated.

Sincerely,

TSRA, INC.

Bill Kelsey

Bill Kelsey
President

BK/sm

Dedicated to the preservation of free flowing rivers, promotion of paddling skills, and river safety.

3/9/90

Honorable Henry J. Nowak
Chair, Water Resources Subcommittee
Public Works & Transportation Comm.
B370A Rayburn House Office Bldg.
Washington, DC 20515-6262

Dear Mr. Nowak:

The Water Resources Development Act of 1990 includes funding for two dams which many here in our community believe will be harmful to our environment. The dams are slated for Mill Creek and Sevenmile Creek.

Nashville's mayor and city council oppose these dams: Not only will they destroy flourishing natural wetlands; they will encourage continued building in floodplains, which will eventually more creeks dammed, more habitat destroyed and more public money wasted needlessly.

Please vote ~~to~~ remove these two dams from the Act.

Sincerely,
Mary Buckner
President, Environmental Action Fund

cc Senator Gore, Senator Sasser, Representative Clement

Mr. **Clement**. As currently proposed, Mr. Chairman, the Corps of Engineers' recommended plan for Mill Creek is dead on arrival.

There have been at least two other alternatives that have been studied by the Corps of Engineers, and both alternatives have a positive benefit to cost ratio.

One of the alternatives, Mr. Chairman, does not even require the construction of a dam to control flooding along Mill Creek.

While the Corps of Engineers may feel that their recommended flood control plan is the best option, it is not the most practical.

It is my hope that we can work together to find a reasonable solution for a vexing problem. I think that the people of Nashville and the people in the various communities that are impacted by this option would like to have more options available to them or no option.

But they feel very strongly that the Corps of Engineers is being too regimented in feeling that there is only one solution to the problem.

In closing, Mr. Chairman, I want to work with you and your staff on resolving the Mill Creek issue prior to your introduction of the Water Resources Development Act of 1990. And, before I introduce our next witness, I would like to have my prepared statement made a part of the record at this point.

Mr. **Nowak**. Without objection, so ordered.

[Mr. Clement's prepared statement follows:]

BOB CLEMENT
5TH DISTRICT, TENNESSEE

COMMITTEE ON
PUBLIC WORKS AND TRANSPORTATION

COMMITTEE ON
MERCHANT MARINE AND FISHERIES

CONGRESSIONAL TRAVEL AND
TOURISM CAUCUS
STEERING COMMITTEE

DEMOCRATIC STEERING AND
POLICY COMMITTEE

Congress of the United States
House of Representatives
Washington, DC 20515-4205

DISTRICT OFFICES
[illegible] U.S. COURTHOUSE
NASHVILLE TN 37203
615-736-5295

[illegible] MAIN STREET
SPRINGFIELD TN 37172
615-384-8800

[illegible] JEFFERSON STREET
SUITE 103
NASHVILLE TN 37208
615-320-1363

WASHINGTON OFFICE
ROOM 325
CANNON HOUSE OFFICE BUILDING
202-225-4311

STATEMENT OF THE HONORABLE BOB CLEMENT
BEFORE THE
SUBCOMMITTEE ON WATER RESOURCES
ON
THE WATER RESOURCES DEVELOPMENT ACT OF 1990
MARCH 14, 1990

MR. CHAIRMAN, OUR NEXT WITNESS THIS AFTERNOON WILL BE MY CONSTITUENT FROM THE 5TH CONGRESSIONAL DISTRICT IN TENNESSEE, MRS. TERESA COUCH. MRS. COUCH WILL SPEAK IN OPPOSITION TO THE U.S. CORPS OF ENGINEERS RECOMMENDATION FOR FLOOD PROTECTION WORKS IN THE MILL CREEK BASIN IN NASHVILLE, TENNESSEE. HOWEVER, BEFORE MRS. COUCH TESTIFIES, I WOULD LIKE TO SAY A FEW WORDS ON THE U.S. CORPS OF ENGINEERS RECOMMENDED PROPOSAL.

MR. CHAIRMAN, THE FLOODING PROBLEM ALONG MILL CREEK HAS PLAGUED THE RESIDENTS AND LANDOWNERS FOR YEARS. IN FACT, AT LEAST TWO OF MY PREDECESSORS IN THE HOUSE OF REPRESENTATIVES HAVE TRIED UNSUCCESSFULLY TO FIND A SOLUTION FOR THIS FLOODING PROBLEM. AS THE THIRD CONGRESSMAN FROM THE 5TH CONGRESSIONAL DISTRICT TO DEAL WITH THIS ISSUE, MY GOAL IS TO RESOLVE THE ISSUE ONCE AND FOR ALL. UNFORTUNATELY, THE PROPOSAL, AS SUBMITTED BY THE CORPS OF ENGINEERS AND APPROVED BY THE OFFICE OF MANAGEMENT AND BUDGET, IS NOT A SOLUTION I CAN SUPPORT AT THIS TIME.

THE U.S. CORPS OF ENGINEERS TESTIFIED BEFORE THIS SAME SUBCOMMITTEE ON MARCH 1, 1990 THAT THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY HAS AGREED TO ACT AS THE NON-FEDERAL SPONSOR FOR THIS PROJECT. I HAVE A LETTER DATED SEPTEMBER 15, 1989 FROM THE MAYOR OF NASHVILLE, THE HONORABLE BILL BONER, TO THE CORPS' DISTRICT ENGINEER, COLONEL PAUL KING, WHICH SAYS, "WE DO NOT SUPPORT ANY PLANNING WHICH WOULD INCLUDE A DAM ON MILL CREEK."

MR. CHAIRMAN, I REQUEST UNANIMOUS CONSENT TO ENTER THIS LETTER INTO THE RECORD.

IN ADDITION, THE U.S. CORPS OF ENGINEERS STATE IN THEIR GREEN BOOK THAT "LOCAL INTERESTS AND THE STATE OF TENNESSEE SUPPORT THE PROJECT." MR. CHAIRMAN, NOT ALL GROUPS SUPPORT THE PROJECT. I HAVE TWO LETTERS I WOULD LIKE ENTERED INTO THE RECORD. ONE IS FROM THE TENNESSEE SCENIC RIVER ASSOCIATION, THE OTHER IS FROM THE ENVIRONMENTAL ACTION FUND. BOTH ORGANIZATIONS OPPOSE THE CORPS OF ENGINEERS RECOMMENDED PROPOSAL.

MR. CHAIRMAN, I REQUEST UNANIMOUS CONSENT TO ENTER THESE TWO LETTERS INTO THE RECORD.

AS CURRENTLY PROPOSED MR. CHAIRMAN, THE CORPS OF ENGINEERS RECOMMENDED PLAN FOR MILL CREEK IS DEAD ON ARRIVAL. THERE HAVE BEEN AT LEAST TWO OTHER ALTERNATIVES THAT HAVE BEEN STUDIED BY THE CORPS OF ENGINEERS, AND BOTH ALTERNATIVES HAVE A POSITIVE BENEFIT TO COST RATIO. ONE OF THE ALTERNATIVES, MR. CHAIRMAN, DOES NOT EVEN REQUIRE THE CONSTRUCTION OF A DAM TO CONTROL FLOODING ALONG MILL CREEK. WHILE THE CORP OF ENGINEERS MAY FEEL THAT THEIR RECOMMENDED FLOOD CONTROL PLAN IS THE BEST OPTION, IT IS NOT THE MOST PRACTICAL. IT IS MY HOPE THAT WE CAN WORK TOGETHER TO FIND A REASONABLE SOLUTION FOR A VEXING PROBLEM.

IN CLOSING MR. CHAIRMAN, I WANT TO WORK WITH YOU AND YOUR STAFF ON RESOLVING THE MILL CREEK ISSUE PRIOR TO YOUR INTRODUCTION OF THE WATER RESOURCES DEVELOPMENT ACT OF 1990.

THANK YOU MR. CHAIRMAN.

Mr. Clement. At this time, I'd like to introduce Ms. Teresa Couch, who is a constituent of the 5th Congressional District, and she and many of her neighbors would be impacted by this Mill Creek.

I'd like Ms. Couch to come forward at this time. Her area, unfortunately, is not the area where the flooding occurs; her area is where the dam is being proposed.

Unfortunately, or fortunately, it's not in the same area, and it does create a real problem for many people in the affected area.

Ms. Couch.

TESTIMONY OF TERESA COUCH, REPRESENTATIVE OF THE CONCERNED CITIZENS FOR THE PRESERVATION OF THE MILL CREEK BASIN, THE SCENIC RIVERS ASSOCIATION, AND THE TENNESSEE CHAPTER OF THE SIERRA CLUB

Ms. Couch. Thank you, Congressman Clement.

Mr. Chairman, members of the committee, I'm Teresa Couch, and I'm here today representing the 1,200 members of the Concerned Citizens for the Preservation of the Mill Creek Basin, the 1,600 members of the Scenic Rivers Association, and the 1,200 members of the Tennessee Chapter of the Sierra Club.

I live in Nashville, Tennessee, and I'm Secretary Treasurer of the Concerned Citizens group. I'm here today to ask you to remove from the list of projects to be authorized the project on Mill Creek in Nashville, Tennessee.

I will try to brief you on the main reasons for this. I've read the testimony of the Director of Civil Works to this committee.

Major General Kelly told you that the metropolitan Government of Nashville and Davidson County has agreed to act as the plan sponsor for this project.

This is not true. The legislative body of Nashville voted 40 to 0 against this project. In addition, the mayor of Nashville has written two letters to the District Engineer which clearly state that building dams is not the solution which he is interested in considering.

This means that there is no plan sponsor, yet the U.S. Army Corps of Engineers is asking you to appropriate $7.25 million for this dam.

This is definitely a misrepresentation. Let me tell you before I continue that everything I'm about to say can be documented.

The documentation is included in the materials which will be presented to each of you today. If you find something lacking, it is only an oversight, and our organization will be happy to respond to any requests.

Here are some reasons we oppose the project. In 1983, the U.S. Army Corps of Engineers stated, and I quote, "The sites available for such measures [meaning dams] would not control a large enough percentage of total basin runoff to significantly reduce the effects of large floods."

This says absolutely nothing about economic feasibility, only that there is not a hole large enough to hold back enough water to relieve flooding. The topography of the area has not changed since then.

Secondly, the Corps of Engineers' report states there are two unresolved issues. One of those is the moral question of taking upstream property owners' lands to benefit those downstream who knowingly located in flood plain areas.

The other unresolved issue is what to do with the land that is taken out of the 100 year flood plain if you build this project.

This strip of land will be developed down to the new 100 year flood plain line, as this is allowed by all local zoning ordinances.

All previous studies, including the Corps', identify this as being the present problem. So we build a dam, develop down to the new flood plain line, and then what have we accomplished?

The people who flooded before now flood again, and this is the exact reason that the Tennessee Department of Conservation, the Tennessee Wildlife Resources Agency, and the Tennessee Conservation League do not support this project, although the corps claims they do.

These agencies' support was conditional upon a guarantee that there would be no development in this strip of land. A reference to that is the Tennessee State Planning Office letter to Sue Little, of the Corps of Engineers, dated November 27, 1987.

Those letters, by the way, are included in the green book that the corps distributed to you. The corps cannot give this guarantee but calls these agencies supportive of the project.

Number three, the costs presented by the corps do not include, one, the cost of 22 new homes that have been constructed since the study that are found in the impoundment area; two, any cost for waiting a replacement of three Columbia Gulf Transmission natural gas lines, which run through the impoundment area; or three, the costs for items which are considered to be local problems, raising of roads which have been recently widened and resurfaced, handling of additional flooding caused by the project, but not included in the acquisition area.

The fourth reason we oppose this is the $2 million of average annual flood damage is a fictitious figure. It's based on a computer model which estimates structures and values in a 500 year flood plain.

Colonel Kelly told you that the 1979 flood of record resulted in $40 million of damages. He didn't tell you that 90 percent of these damages are reported at two locations; a commercial warehouse business and a trucking firm.

This number is an unverified figure based on telephone calls made to flood victims within hours of the 1979 flood. No consideration was made regarding salvage values of the $30 million of damage reported at the commercial warehouse, nor were these figures substantiated at a later date.

We believe that if the Federal Government is going to believe that these numbers are the actual damage figures that they should require that these numbers be substantiated.

Our organization has spent five years studying this project. Our findings have been reviewed by professional engineers and hydrologists, attorneys and environmentalists.

Contrary to what you might believe by reading the Corps' documents, we are not simply irate citizens against a project. Our organization is broad-based and county-wide.

We have recommended a plan which is workable and ironically costs much less than the Corps of Engineers recommended plan.

It is based on the premise that flood relief should be dealt with separately from stimulation of the economy. We have prepared a report which will be distributed to each of you, if not already done, and we would like very much to meet with you or a member of your staff to discuss this issue further. We welcome any questions you may have.

I'd like to thank you again, Mr. Chairman and the committee, for allowing us to speak today and urge you to remove this project.

Mr. NOWAK. Thank you very much. I'm looking at the letter from Bill Boner, who is the mayor of Nashville. Is this the latest correspondence, September 15, 1989?

Ms. COUCH. There was one after that. That is the first correspondence that very clearly states that the city of Nashville will not entertain any solution that includes dams.

We picked up a letter on Monday, and it's in the first of this book dated March 12, on Monday, that reiterates his position from that letter.

Mr. CLEMENT. Well, it says this, and I'll read it real quick:

> I wanted to take this opportunity to reaffirm my previous correspondence regarding the Corps of Engineers and the solution to flooding on Mill Creek and its tributaries.
>
> As I have indicated to you previously, I offer my support in determining a solution for this problem; however, I am not convinced construction of a dry bed reservoir or dam would be the most effective solution.

He's saying he wants a solution to the problem, he realizes we've got some serious flooding there, but he's not so sure the answer to the problem is a dry bed reservoir or dam, and that's why I'm exploring some other options for your consideration rather than just one option, to give the mayor and the city council more flexibility and freedom to make a final determination.

Mr. NOWAK. In your analysis, if you don't have other options, will the local community put up the local share?

Ms. COUCH. They have not indicated either through the metro council or the mayor that they would do this.

Mr. NOWAK. Well, we'll have time, I assume, to work with Congressman Clement on finding a solution. If the local share is not going to be forthcoming, we would, you know, like to know that and maybe pursue a different solution with the corps and with Congressman Clement and the other local officials and yourself.

The staff would be available for meetings and certainly, at your convenience, would like to sit down and perhaps start to explore those other solutions before too much time slides, if there is a solution that can be put together.

Mr. CLEMENT. That's correct, because if we get something authorized, at least the local people have at least five years to put up those matching funds.

But there have been other options proposed such as to buy out some of those homes in the flood plain area or channel widening rather than building a dam and taking some beautiful farm property and some beautiful homes and people that have lived there for many, many years.

Mr. NOWAK. Thank you very much.

Congressman Stangeland.

Mr. **Stangeland**. Thank you.

You know, my counsel would run to this point. If you have no sponsor, we're not going to authorize this thing.

Mr. **Clement**. I agree.

Mr. **Stangeland**. I had a similar situation in my district when we authorized a flood control study. The corps came into the project and the local sponsors said no way, we don't want that.

I think what you have to do is the local people have to work with the corps locals and try to develop your alternatives.

I don't know that we can authorize your alternatives with the Corps saying they want to do one project and you saying something else. I think you have to iron that out at the local level and come back to us.

Give a scaled down project that gets the job done, and the corps will approve it and go ahead and do it, and you have cost sharing from local sponsors, and we're ready to go.

But before that, I think, you have to settle it, and we just aren't going to authorize a project that people don't want.

Mr. **Clement**. Thank you.

Mr. **Nowak**. Thank you very much, and we'll be back to you as we make some progress.

[Ms. Couch's prepared statement follows:]

Teresa Couch
Concerned Citizens for the Preservation of the
Mill Creek Basin
6006 Culbertson Rd, Antioch, Tennessee 37013

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE. I AM TERESA COUCH HERE TODAY REPRESENTING THE CONCERNED CITIZENS FOR THE PRESERVATION OF THE MILL CREEK BASIN, THE TENNESSEE SCENIC RIVERS ASSOCIATION, AND THE SIERRA CLUB. I LIVE IN NASHVILLE, TENNESSEE AND AM SECRETARY/TREASURER OF THE CONCERNED CITIZENS GROUP.

I AM HERE TODAY TO ASK YOU TO REMOVE FROM THE LIST OF PROJECTS TO BE APPROVED FOR FUNDING THE PROJECT ON MILL CREEK IN NASHVILLE, TENNESSEE. I WILL TRY IN MY ALLOWED 5 MINUTES TO BRIEF YOU ON THE MAJOR REASONS FOR THIS.

I HAVE READ THE TESTIMONY OF THE DIRECTOR OF CIVIL WORKS TO THIS COMMITTEE. MAJOR GENERAL KELLY TOLD YOU THAT THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY HAS AGREED TO ACT AS THE PLAN SPONSOR FOR THIS PROJECT. THIS IS NOT TRUE! THE LEGISLATIVE BODY OF NASHVILLE VOTED 40-0 AGAINST THIS PROJECT. THE MAYOR OF NASHVILLE HAS WRITTEN TWO LETTERS TO THE DISTRICT ENGINEER WHICH CLEARLY STATE THAT BUILDING DAMS ON MILL CREEK IS NOT A SOLUTION WHICH THE CITY WILL CONSIDER. THE LAST LETTER IS DATED SEPTEMBER 15, 1989. THIS MEANS THERE IS NO PLAN SPONSOR! YET THE U.S.ARMY CORPS OF ENGINEERS IS ASKING YOU TO APPROPRIATE $7.25 MILLION FOR THIS DAM. GENTLEMEN, THIS IS LYING TO CONGRESS WHICH IS A FEDERAL OFFENSE. IT SHOULD ALSO BE AN INSULT TO THIS COMMITTEE WHO THE CORPS APPARENTLY FEELS IS INCAPABLE OF MAKING A DECISION BASED ON THE TRUE MERITS OF A PROJECT.

LET ME TELL YOU BEFORE I CONTINUE THAT EVERYTHING I AM ABOUT TO SAY CAN BE DOCUMENTED. THE DOCUMENTATION IS INCLUDED IN THE MATERIALS WHICH WILL BE PRESENTED TO EACH OF YOU TODAY, IF YOU FIND SOMETHING LACKING, IT IS ONLY AN OVERSIGHT AND OUR ORGANIZATION WILL BE HAPPY TO RESPOND TO ANY REQUEST.

1.IN 1983 THE U.S.ARMY CORPS OF ENGINEERS STATED AND I QUOTE "THE SITES AVAILABLE FOR SUCH MEASURES (DAMS) WOULD NOT CONTROL A LARGE ENOUGH PERCENTAGE OF TOTAL BASIN RUNOFF TO SIGNIFICANTLY REDUCE THE EFFECTS OF LARGE FLOODS." THIS SAYS NOTHING OF ECONOMIC FEASIBILITY -- ONLY THAT THERE IS NOT A HOLE LARGE ENOUGH AND THE TOPOGRAPHY HAS NOT CHANGED.

2.THE CORPS' REPORT STATES THERE ARE TWO UNRESOLVED ISSUES. ONE OF THOSE IS THE MORAL QUESTION OF TAKING UPSTREAM PROPERTY OWNERS LANDS TO BENEFIT THOSE DOWNSTREAM WHO KNOWINGLY LOCATED IN FLOODPLAIN AREAS. THE OTHER UNRESOLVED ISSUE IS WHAT TO DO WITH THE LAND THAT IS TAKEN OUT OF THE 100 YEAR FLOODPLAIN IF YOU BUILD THIS PROJECT. THIS STRIP OF LAND WILL BE DEVELOPED DOWN TO THE NEW 100 YEAR FLOODPLAIN LINE AS THIS IS ALLOWED BY ALL LOCAL LAWS WITH NO RESTRICTIONS. ALL PREVIOUS STUDIES (INCLUDING THE CORPS') IDENTIFY THIS AS THE PRESENT PROBLEM. SO WE BUILD A DAM, DEVELOP DOWN TO THE NEW FLOODPLAIN LINE, AND THEN WHAT HAVE WE ACCOMPLISHED -- THE PEOPLE WHO FLOODED BEFORE NOW FLOOD AGAIN -- AND THIS IS THE EXACT REASON THAT THE TENNESSEE DEPARTMENT OF CONSERVATION, THE TENNESSEE WILDLIFE RESOURCES AGENCY AND THE TENNESSEE CONSERVATION LEAGUE DO NOT SUPPORT THIS PROJECT ALTHOUGH THE CORPS CLAIMS THEY DO. THESE AGENCIES' SUPPORT WAS

CONDITIONAL UPON A GUARANTEE THAT THERE WOULD BE NO DEVELOPMENT IN THIS STRIP OF LAND. (SEE TN STATE PLANNING OFFICE LETTER TO SUE LITTLE AT CORPS 11/27/87) THE CORPS CANNOT GIVE THIS GUARANTEE BUT CALLS THESE AGENCIES SUPPORTIVE OF THE PROJECT.

3. COSTS PRESENTED BY THE CORPS DO NOT INCLUDE (A) THE COSTS OF 22 NEW HOMES CONSTRUCTED SINCE THE STUDY WHICH WOULD BE IN THE IMPOUNDMENT AREA (B) ANY COST FOR WEIGHTING OR REPLACEDMENT OF THREE COLUMBIA GULF TRANSMISSION NATURAL GAS PIPELINES WHICH RUN THROUGH THE IMPOUNDMENT AREA.(C) THE COSTS FOR ITEMS WHICH ARE CONSIDERED TO BE LOCAL PROBLEMS - RAISING OF ROADS WHICH HAVE BEEN RECENTLY WIDENED AND RESURFACED, HANDLING OF ADDITIONAL FLOODING CAUSED BY THE PROJECT BUT NOT INCLUDED IN THE ACQUISITION AREA.

4. THE $2 MILLION OF AVERAGE ANNUAL FLOOD DAMAGE IS A FICTITIOUS FIGURE BASED ON A COMPUTER MODEL WHICH ESTIMATES STRUCTURES AND VALUES IN THE 500 YEAR FLOODPLAIN -- AND WE'VE ONLY BEEN HERE 200 YEARS. COLONEL KELLY TOLD YOU THAT THE 1979 FLOOD OF RECORD RESULTED IN $40 MILLION OF DAMAGES. HE DIDN'T TELL YOU THAT 90% OF THESE REPORTED DAMAGES OCCURRED AT TWO LOCATIONS -- A COMMERCIAL WAREHOUSE BUSINESS AND A TRUCKING FIRM. THIS NUMBER IS AN UNVERIFIED FIGURE BASED ON TELPHONE CALLS MADE TO FLOOD VICTIMS WITHIN HOURS OF THE 1979 FLOOD. NO CONSIDERATION WAS MADE REGARDING SALVAGE VALUES OF THE $30 MILLION OF DAMAGES REPORTED FROM THE COMMERCIAL WAREHOUSE NOR WERE THESE NUMBERS SUBSTANTIATED AT A LATER DATE. SINCE ACCEPTED BUSINESS PRACTICES REQUIRE LOSSES TO BE VERIFIED BY PROFESSIONAL APPRAISERS, IT APPEARS THAT THE FEDERAL GOVERNMENT SHOULD REQUIRE SOME SORT OF VERIFICATION BEFORE THESE NUMBERS ARE USED TO JUSTIFY SPENDING FEDERAL DOLLARS.

OUR ORGANIZATION HAS SPENT FIVE YEARS STUDYING THIS PROJECT. OUR FINDINGS HAVE BEEN REVIEWED BY PROFESSIONAL ENGINEERS AND HYDROLOGISTS, ATTORNEYS AND ENVIRONMENTALISTS. CONTRARY TO WHAT YOU MIGHT BELIEVE BY READING THE CORPS' DOCUMENTS, WE ARE NOT SIMPLY IRATE CITIZENS AGAINST A PROJECT. OUR ORGANIZATION IS BROAD-BASED AND COUNTY-WIDE. WE HAVE RECOMMENDED A PLAN WHICH IS WORKABLE AND IRONICALLY COSTS MUCH LESS THAN THE CORPS OF ENGINEERS RECOMMENDED PLAN -- IT IS BASED ON THE PREMISE THAT RELIEF FROM FLOODING SHOULD BE DEALT WITH SEPARATELY FROM STIMULATION OF THE EONCOMY.

WE HAVE PREPARED A REPORT WHICH WILL BE DISTRIBUTED TO EACH OF YOU. WE WOULD LIKE VERY MUCH TO MEET WITH YOU OR A MEMBER OF YOUR STAFF TO DISCUSS THIS ISSUE FURTHER. WE WILL BE IN WASHINGTON THROUGH TOMORROW.

I WOULD LIKE TO THANK YOU MR. CHAIRMAN AND THE COMMITTEE FOR ALLOWING US TO SPEAK AT THIS HEARING. WE URGE YOU TO REMOVE THIS MILL CREEK PROJECT FROM THE WATER RESOURCE DEVELOPMENT ACT OF 1990.

Mr. NOWAK. Let us now invite another panel that has a similar interest. Mr. Pallone, would you like to testify now, or could you wait a few minutes?

Mr. PALLONE. I'd rather go now, Mr. Chairman. I won't be very long.

Mr. NOWAK. Okay, Congressman Pallone will be recognized at the present time.

SANDY HOOK, BEACH EROSION, NJ

TESTIMONY OF HON. FRANK PALLONE, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. PALLONE. Thank you, Mr. Chairman, and I will try to make it brief and just summarize my testimony, which I believe you have the written copies of.

As you know, we have three projects that need attention in the district. Let me first mention the dredge spoil disposal area for the New York-New Jersey region, which is six miles off of my Congressional district.

Mr. Chairman knows that we held a subcommittee, and I was very pleased that you granted my request to have the subcommittee hold a hearing in Union Beach last year, where we discussed the issue of the dredge spoil site off the coast of my district.

The Water Resources Development Act of 1986 required that the EPA would find a new disposal area at least 20 miles offshore, basically as an alternative to the current six mile site.

However, at that hearing and on many occasions, I have voiced reservations and disapproving the site for at least 20 miles offshore and also general disapproval toward the practice of direct ocean disposal of contaminated dredge materials.

A number of alternatives to ocean disposal have been suggested by the Port Authority. Ideally, I would like to see a demonstration project which works to adapt superfund technology in the treatment of dry soils to wet soils.

I also favor the continued use of beach quality materials for shore protection measure. Right now, I'm working on a proposal with the Port Authority and with the cooperation of the environmental community and federal agencies to try to resolve this problem and come up with some sort of demonstration project that would ultimately eliminate the need for this offshore dredge site for the contaminated materials, and I would ask that this subcommittee continue to assist in efforts to accommodate these plans, which I know that you have, Mr. Chairman.

My second request is to ask that the subcommittee authorize the corps to begin its planning and design phase for the third reach of the Beach Erosion Control Project from Sandy Hook to Barnegat.

I'm sure many of you are aware of this, because this was one of Congressman Howard's pet projects. Work has progressed on the first reach.

In fact, the State has provided the funds and has been committed to the State funding for that program, but we now need to begin the planning and designing phase for the third reach, and that third reach extends from Manasquan to Barnegat and is the last link of this project.

It's important that we authorize the corps to begin the study at this time in order to coordinate completion of the project without any interruption.

Finally, I wanted to ask the subcommittee for something new, to authorize the Army Corps of Engineers to conduct a flood control study for the entire Raritan Bayshore.

To the best of my knowledge, there has not been a close examination of flooding problems in the Bayshore area since Hurricane Donna in 1960.

The State is in the process of undertaking a beach erosion control project at Union Beach, where we had our subcommittee hearing, to remedy the effects of storm flooding and erosion.

However, there are several other areas in Union Beach and in other parts of the Bayshore that pose significant flooding hazards.

Most notably, a few weeks ago, I heard from my constituents in Keansburg, which is near Union Beach. We had a town meeting there, and they expressed some concerns about flood control and indicated some areas where a study needed to be undertaken.

So I feel that it is necessary now for the corps to conduct an extensive study of this Bayshore in the event of a major storm, which would, of course, make it very difficult for a lot of the homes and the drainage basins in that region.

I just want to thank you again, Mr. Chairman. Those are the conclusions of my remarks, but I wanted to thank you again for conducting that hearing in Union Beach on the dredge spoil site, because that really is a crucial issue for my district. Thank you.

Mr. NOWAK. Thank you very much, Mr. Pallone. That was an informative hearing we had there, and certainly your requests here will be looked at in great detail as we proceed with this.

Your area contains much sensitive estuary land and other water problems, and we certainly want to pay close attention as it affects, as you greatly pointed out, a great, larger population base than just the Congressional District.

I want to congratulate you for focusing on a very important aspect of your district.

Congressman Stangeland.

Mr. STANGELAND. I have no questions. I just would suggest probably on the flood control study at Raritan Bayshore, we could do that by resolution, but you might want some more documentation and backing from locals to get that done, but if that's a needed thing, it could be very easily done.

Mr. PALLONE. I just wanted to bring it to your attention today, and I've been working with them to try to see exactly what needs to be done.

Mr. STANGELAND. We'd be happy to work with you on that.

Mr. PALLONE. Thank you.

Mr. NOWAK. Thank you very much, Congressman.

[Mr. Pallone's prepared statement follows:]

STATEMENT OF REPRESENTATIVE FRANK PALLONE, JR.
BEFORE THE COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
SUBCOMMITTEE ON WATER RESOURCES
MARCH 14, 1990

REAUTHORIZATION OF THE WATER RESOURCES DEVELOPMENT ACT

Mr. Chairman, Thank you for the opportunity to present testimony before today's panel regarding Army Corps projects needed in the Third Congressional District of New Jersey. My Coastal District strongly depends upon the Army Corps for its work on shore protection, flood control and dredging activities.

Let me begin with a matter you are well aware of, the Army Corps along with the Environmental Protection Agency (EPA) maintains a dredge spoil disposal area for the New York - New Jersey region six miles off my Congressional District. The Subcommittee held a hearing on this issue in my Congressional District last year. The Water Resources Development Act of 1986 required the EPA to find a new disposal area at least 20 miles offshore. As you know, I have voiced reservation and disapproval for moving the site and towards the practice of direct ocean disposal of contaminated dredge materials.

A number of alternatives to ocean disposal have been suggested by the Army Corps of Engineers, most notably the construction of a containment island for contaminated sediments. Ideally, I would like to see a demonstration project which works to adapt Superfund technology for the treatment of dry soils to wet soils. I also favor the continued use of beach quality materials for shore protection measures.

I am working on a proposal with the Port Authority of New York and New Jersey, the environmental community and the federal agencies in an effort to resolve this problem. I would ask that this Subcommittee continue to assist in efforts to accomodate these plans now underway.

My next request is to ask that the Subcommittee authorize the Corps to begin its planning and design phase for the third reach of the Beach Erosion Control Project from Sandy Hook to Barnegat, New Jersey. The third reach extends from Manasquan to Barnegat and is the last link in this project. It is important that we authorize the Corps to begin the study at this time in order to coordinate completion of the project without interruption.

Finally, I would ask this Committee to authorize the Army Corps of Engineers to conduct a flood control study at the entire Raritan Bayshore. To the best of my knowledge there has not been a close examination of flooding problems at the bayshore towns since hurricane 'Donna' in 1960.

The State of New Jersey has undertaken a beach erosion control project at Union Beach to remedy the effect of storm flooding and erosion. However, there are several other areas in Union Beach which pose significant flooding hazards. Recently, I have heard from my constituency in Keansburg, New Jersey regarding concerns over the long-term effect of frequent flooding in this community.

My concern is not limited to Union Beach and Keansburg. feel that it is necessary the Corps work now to conduct an extensive study of this area in the event a major storm warrant prompt action on behalf of these residents.

Mr. Chairman, thank you for your time. Again, I want to thank you for conducting a field hearing on the contaminated sediment issue in Union Beach. I know that you are aware of these other concerns as well and I look forward to working with you on these projects.

Mr. NOWAK. Congressman Grant, would you like to present your formal testimony at this time?

Mr. GRANT. I can, Mr. Chairman, but if we have time problems from other people——

Mr. NOWAK. Well, what we're going to do is have Congressman Grant's testimony and then we'll have the Second Soo Lock problem with George Ryan, Larry Karnes, and Henry Hanka, and then at 2:30, we will move from this room to room 2167 for the Passaic portion of the hearing.

So you'll be able to move there to the larger room, and we'll be able to handle all sides of that question.

Congressman Grant.

CROSS FLORIDA BARGE CANAL

TESTIMONY OF HON. BILL GRANT, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA

Mr. GRANT. Thank you, Mr. Chairman.

I want to thank you and the committee for giving me the opportunity today to talk about three issues that are important to north Florida.

Last week, as you recall, following the testimony of my colleague from Florida, Congressman Bennett, I spoke briefly about legislation that Congressman Stern, Senators Graham and Mack, and others and I were developing to completely deauthorize the Cross Florida Barge Canal to ensure that the land acquired for the waterway be kept as a greenway instead for the enjoyment of future generations.

We have introduced that legislation on March 8th. It's House Resolution 4237, we had 10 cosponsors of our bill, and Senator Graham and Senator Mack have also introduced identical bills in the Senate.

Back in 1986, several members of this subcommittee played key roles in fashioning a very skillful compromise on the issue between those members that favored authorization continuing, on one hand, and those who wanted to deauthorize the project, and that was contained in the Water Resources Development Act.

In 1990, Mr. Chairman, there is no disagreement among Florida Congressmen about the future of the Cross Florida Barge Canal.

We want it completely deauthorized, and I believe that the Water Resources Development Act is the instrument to achieve this goal.

My colleague, Cliff Stearns, is submitting testimony that will detail our legislation more completely.

But I'd like to say that I consider the Barge Canal symbolic of an environmental awakening that's going on in Florida, a demarkation, if you will, a clear reference point separating an era when people considered the environment something to be manipulated and exploited from our present understanding that our way of life and the future of our children depend on proper protection and a wise stewardship of our land and resources.

We hope with this legislation to write the final chapter on this project, which had its origin, frankly, in Pedro Menendez and his Spanish explorers of Florida.

President Roosevelt authorized through funding signed into law its initial funding back in the Great Depression. President Nixon stopped the canal in 1971 citing environmental concerns, and in 1977 the Corps of Engineers recommended that the project be terminated, so for the last 13 years, we've been debating how to write the epitaph for the canal.

Our legislation accomplishes the transformation of the canal, I believe, in the most efficient and expeditious way possible.

It requires that the State of Florida pass legislation guaranteeing that the central canal lands be preserved for the benefit and enjoyment of present and future generations and the development of outdoor recreation before the Federal Government relinquishes its authority.

Our approach has the endorsement of our Governor and the State of Florida's Canal Authority, the Corps of Engineers, State legislators, county governments, environmental groups, and I'm also hoping it will have the support of this subcommittee.

The second item, last week our subcommittee heard testimony from Robert Page, the Assistant Secretary of Army for Civil Works.

During the course of that hearing, Secretary Page answered questions, some questions, anyway, concerning the reallocation of water from Lake Lanier in Georgia to the city of Atlanta.

Lake Lanier, as you might know, is the source of the Apalachicola, the Chattahoochee, and the Flint Rivers, and it impacts the citizens of the States of Florida and Alabama, as well as Georgia.

For this reason, I believe that those who plan to look to Lake Lanier to solve the city of Atlanta's water problems must also be ready to address the needs of those interests downstream.

The Apalachicola River flows into the Apalachicola Bay, which is home of a once prosperous oyster industry. I have watched, as a citizen and native of north Florida and now representative of Franklin County, this thriving industry decline.

For example, in 1987, approximately 655,000 oysters were harvested in that bay; last year, only 231,000 were harvested. What happens is when there is a decrease of water into the bay, the salinity of the bay increases, and the production of oysters declines.

The problems of that bay are directly affected by the supply of water that flows down the Apalachicola River from Lake Lanier.

My colleagues from Georgia have proposed a reallocation of 207,000 acre feet of storage from that ACF system, Apalachicola, Chattahoochee, and Flint River system, in addition to proprietary support of 529 million gallons of water a day for the greater Atlanta metropolitan area.

Now, I'm not an engineer, but it doesn't take a rocket scientist to figure out that 529 million gallons of water a day is going to be sorely missed somewhere downstream.

The city of Atlanta does have a water problem, and I think it's prudent for them and for all of us to look ahead, to try to anticipate their needs, but our system is just that. It is a riverene system, and any proposed changes that are made to Lake Lanier should take into account the interest of all three states affected.

We've got to insist, Mr. Chairman, I hope, that all aspects of any proposal be studied completely, especially environmental ramifications.

Finally, Mr. Chairman, I'd like to speak briefly to the Kissimee River restoration issue. Members of this subcommittee are already familiar with this project.

In the last session of the Congress, I asked, and this subcommittee included a provision in the bill to extend the Corps' authorization to begin the restoration of the Kissimee River to its natural state.

At one time, the Kissimee River was 98 miles long, it was a meandering river, and it was home to millions of rare, beautiful birds and other wildlife.

Today, the Kissimee River is a straight 48-mile ditch. In the 20 years since the straightening of the river occurred, we've seen our wetlands habitat reduced by 75 percent, we've seen our waterfowl population reduced by an amazing 90 percent, and I believe that all of us, especially in Florida, realize that we made a grave, grave error when we channelized the Kissimee River.

Fortunately, the State of Florida and our Federal Government are taking steps to repair some of the damage we've done.

This Congress has authorized about $25 million for projects of this nature, but there is currently some dispute as to whether the current authorization language is appropriate.

I've contacted the corps to let them know that should they determine that the current authorization is not sufficient, I'm prepared to do all that I can to see that the language is changed.

The restoration of the Kissimee is important just unto itself, but it's important also to a much grander plan to preserve our great Everglades.

It's not just a Florida issue, it's a National issue. There's only one Everglades in the world, and I'd just like to bring this issue to the attention of the members and ask for their support should additional legislation be required.

Thank you.

Mr. NOWAK. Thank you very much, Congressman Grant, and certainly we look forward to working with you on all three of these projects.

The Kissimee project we have looked at before, and, as we have realized, your reference to what happened when that was straightened was a real tragedy, and we're going to try to do everything we can to at least reduce those impacts.

Thank you very much for your testimony.

[Mr. Grant's prepared statement follows:]

CONGRESSMAN BILL GRANT
STATEMENT
SUBCOMMITTEE ON WATER RESOURCES
MARCH 14, 1990

Mr. Chairman, I want to thank you for giving me the opportunity to address the Subcommittee today concerning several issues important to North Florida.

Last week, following the testimony of my esteemed colleague from Florida, Congressman Charles Bennett, I spoke briefly about an initiative that I, Congressman Stearns and Senator Graham were developing to completely deauthorize the Cross Florida Barge Canal and ensure that the land acquired for the proposed waterway be kept as a greenway for the enjoyment of the citizens of Florida.

On Thursday, March 8, our bipartisan legislation, H.R. 4237, was introduced in the House with 10 co-sponsors. Sen. Graham and Sen. Mack introduced an identical bill in the Senate.

In 1986, several members of this Subcommittee played pivotal roles in fashioning a very skillful compromise on this issue between those members favoring deauthoriztion of the Cross Florida Barge Canal and those who wanted to keep the project alive. That compromise was contained in the Water Resources

Development Act.

Mr. Chairman, there is no disagreement among Florida Congressmen in 1990 about the future of the Cross Florida Barge Canal. We all want it completely deauthorized; I believe the Water Resources Development Act is the proper instrument for achieving this worthy goal.

My Florida colleague Congressman Cliff Stearns will be testifying later today on this same issue, and will detail our legislation.

I would like to say though, that I consider the Cross Florida Barge Canal symbolic of the environmental awakening of my great state. The Canal is a demarcation ... a clear reference point separating an era when people considered the environment something to be manipulated and exploited from our present understanding that our way of life and the future of our children depends on proper protection and wise stewardship of our land and water resources.

With our legislation, we hope to write the final chapter on a project which was envisioned by Spanish explorer Pedro Menendez and had its initial funding during the administration of President Franklin Roosevelt during the Great Depression.

Construction of the Cross Florida Canal began in 1964 and was halted by President Nixon in 1971, who cited Florida's fragile environment -- specifically its drinking water -- as reasons for his decision to suspend construction.

In 1977, the Army Corps of Engineers recommended the canal project be terminated. And for the last 13 years, there has been disagreement over how to write the epitaph for the Cross Florida Barge Canal.

I believe environmental awareness is one of our generation's great achievements. And nowhere is this practiced more vigorously than in my home state of Florida, where hundreds of thousands of acres of delicate marsh, seashore and inland treasures have been protected through purchase, donation and easement.

Our legislation accomplishes the transformation of the Canal lands in the most efficient and expeditious way possible. It requires that the State of Florida pass legislation guaranteeing that the essential Canal lands be preserved "for the benefit and enjoyment of present and future generations and the development of outdoor recreation," before the Federal government relinquishes its authority.

Our approach has the endorsement of Florida Gov. Bob Martinez, the State of Florida's Canal Authority, the Army Corps of Engineers, state legislators, county governments and environmental groups. I am hopeful it will also have the support of this Subcommittee.

Last week this Subcommittee heard testimony from Mr. Robert W. Page, the Assistant Secretary for the Army for Civil Works. During the course of that hearing, Assistant Secretary Page answered some questions concerning the reallocation of water from Lake Lanier to the City of Atlanta.

Lake Lanier is the source of the Apalachicola, Chattahoochee and Flint (ACF) rivers, and impacts the citizens of the states of Florida, Alabama and Georgia. For this reason, I believe that those who plan to look to Lake Lanier to solve the City of Atlanta's water problems must also be ready to address the needs of those interests downstream.

The Apalachicola River flows into the Apalachicola Bay which is the home of a once prosperous oyster industry. As a lifelong North Floridian, and the Representative of Franklin County, I have sadly watched this thriving industry decline.

For example, in 1987 approximately 655,000 oysters were harvested in Apalachicola Bay. In 1988, only 231,000 were harvested, a decline of 65 percent. These oysters are heavily dependent on the rivers and upland drainage to supply clean, nutrient rich water. A decrease in the freshwater input leads to higher salinity in the water. Studies conducted by the Florida Department of Natural Resources conclude that a higher salinity environment encourages predation and disease from other marine organisms.

The past and present problems the Florida oyster industry has experienced have been linked to the recent drought conditions. It is abundantly clear that a sufficient volume of water flowing into Apalachicola Bay is vital to the continuation of the North Florida oyster industry.

My colleagues from Georgia propose a reallocation of 207,000 acre feet of storage from the ACF system in addition to proprietary support of 529 million gallons a day of water for the greater Atlanta metropolitan area. They contend that this change should have little or no effect on the downstream interests. I don't profess to be an engineer, but it seems to me that the 529 million gallons of water a day will be sorely missed downstream.

The City of Atlanta has a water problem, and it is prudent for them to look ahead and try to anticipate those needs. But, the ACF system is just that -- a system -- and any proposed changes should take into account the interests of all three states affected. We must insist that all aspects of any proposal be studied completely, especially its environmental ramifications.

This issue is too important to too many people to make a hasty decision, and I hope that the Chairman and this Subcommittee will give my comments and this important issue their full consideration.

Mr. Chairman, the next issue I would like to speak to briefly is the Kissimmee River Restoration. I believe that many of the members of this Subcommittee are already familiar with this project. During the 100th Congress, at my request, this Subcommittee included a provision in the Water Resources Development Act to extend the Army Corps of Engineers' authorization to begin the restoration of the Kissimmee River to its natural state.

As you may know, the Kissimmee River flows directly into the Florida Everglades. Once a 98 mile meandering river, and home to millions of rare and beautiful birds and other wildlife, the Kissimmee River today is a straight 48 mile ditch. In the 20 years since the "straightening" of the river occurred we have seen our wetland habitats reduced by 75 percent and our waterfowl population reduced by an astonishing 90 percent.

I believe that we have all realized that a grave error was made when the Kissimmee was channelized. Fortunately, the State of Florida and the Federal government are taking steps to repair some of the damage we have done. This Congress has authorized about $25 million for these types of projects, but there is currently some dispute as to whether the current authorization language is appropriate.

I have contacted the Corps to let them know that should they determine that the current authorization is not sufficient, I am prepared to do all I can to see that the language is changed. The restoration of the Kissimmee is important unto itself, but it is also a vital component in the grander plan to preserve the Everglades. This is not just a Florida issue, it is a national one. There is only one Everglades in the world, and I would jus like to bring this issue to the attention of the members and ask for their support should additional legislation be required.

[The statement of Hon. Cliff Stearns, a Representative in Congress from Florida follows:]

STATEMENT OF CONGRESSMAN CLIFF STEARNS

COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

SUBCOMMITTEE ON WATER RESOURCES

MARCH 14, 1990

THANK YOU MR. CHAIRMAN, FOR THE OPPORTUNITY TO COME BEFORE THIS PANEL TODAY TO SHARE MY COMMENTS AND CONCERNS REGARDING A PROJECT THAT HAS LONG BEEN THE SUBJECT OF DISPUTE AND DISCUSSION - THE CROSS-FLORIDA BARGE CANAL.

THE QUESTION WHICH HAS GONE UNANSWERED FOR THE LAST 20 YEARS IS HOW TO ENSURE THAT THE LANDS ONCE SET ASIDE FOR THE CROSS FLORIDA BARGE CANAL ARE PRESERVED AND PROTECTED IN AN ENVIRONMENTALLY-SOUND MANNER.

THE ANSWER IS CONTAINED IN LEGISLATION I INTRODUCED LAST THURSDAY. SENATOR BOB GRAHAM AND I HAVE COME UP WITH A BI-PARTISAN, BI-CAMERAL SOLUTION WHICH HAS AS ITS MAIN OBJECTIVE PERMANENT ASSURANCE THAT 77,000 ACRES OF FLORIDA'S UNTOUCHED BEAUTY ARE PRESERVED FOR THE BENEFIT AND ENJOYMENT OF PRESENT AND FUTURE GENERATIONS.

PRESIDENT NIXON HALTED CONSTRUCTION OF THE CANAL ALMOST TWO DECADES AGO BECAUSE OF THE RISK IT POSED TO FLORIDA'S FRAGILE ENVIRONMENT, BUT THE PERMANENT ENVIRONMENTAL PROTECTION OF THESE BEAUTIFUL LANDS HAS HUNG IN LIMBO EVER SINCE.

NOW OUR GOAL IS TO FINALLY SEAL THE FATE OF THE CANAL LANDS, TO TAKE THEM OUT OF LIMBO AND PUT THEM ON A FIRM, ENVIRONMENTALLY-SOUND FOOTING.

I KNOW YOU HAVE HEARD FROM MY DISTINGUISHED COLLEAGUES FROM FLORIDA, CHARLIE BENNETT AND BILL GRANT, ON THIS ISSUE, AND I WANT TO ECHO THEIR STATEMENTS REGARDING PROTECTION OF THE LANDS IN AN ENVIRONMENTALLY-SOUND MANNER. ALTHOUGH OUR METHODS ARE NOT THE SAME, MR. BENNETT AND I HAVE AS OUR UNWAVERING GOAL THE SAFEGUARDING OF FLORIDA'S FRAGILE ECOLOGY AND THE

PRESERVATION OF THE AQUIFER WHICH PROVIDES WATER FOR A LARGE PART OF THE STATE.

SPECIFICALLY, MY BILL WILL CREATE A COMBINATION OF STATE PARK AND CONSERVATION OR RECREATION AREAS FROM THE CANAL LANDS WHICH ARE CURRENTLY HELD BY THE STATE AND THE FEDERAL GOVERNMENT. THE CANAL WILL BE DEAUTHORIZED IMMEDIATELY, AND THE LANDS TRANSFERRED TO STATE CONTROL. A CONTINUOUS GREENWAY CORRIDOR WILL BE CREATED - ONE WHICH WILL EXTEND FROM THE GULF OF MEXICO TO THE ST. JOHNS RIVER. THIS 110-MILE STRIP WILL BE PRESERVED AND MAINTAINED BY THE STATE OF FLORIDA.

THE COUNTIES THROUGH WHICH THE CANAL WAS TO BE BUILT WILL BE REPAID A TOTAL OF $32 MILLION FOR THE CANAL RIGHT-OF-WAY LANDS WHICH THEY PURCHASED. THESE COUNTIES WILL BE REPAID THROUGH THE SALE OF NON-CONTIGUOUS LANDS AT CURRENT APPRAISED VALUE.

OUR PLAN SAFEGUARDS THE LANDS THROUGH A REQUIREMENT THAT THE NECESSARY STATE LEGISLATION FOR IMPLEMENTATION AND A STATE MANAGEMENT PLAN BE ENACTED BEFORE TRANSFER OF THE FEDERALLY-HELD PORTION OF THE LAND. THIS PROTECTS OUR INTERESTS, AS WELL AS THOSE RIGHTFULLY HELD BY THE STATE.

THE LEGISLATION I HAVE INTRODUCED IS THE RESULT OF MANY DIFFERENT GROUPS COMING TOGETHER WITH THE COMMON GOAL OF PROTECTING FLORIDA'S ENVIRONMENT.I'M PLEASED THAT THIS BILL HAS RECEIVED THE STRONG ENDORSEMENT OF MARJORIE CARR, OF THE FLORIDA DEFENDERS OF THE ENVIRONMENT, WHO HAS SPEARHEADED THE EFFORT TO DEAUTHORIZE THE CANAL. OTHER STATE ENVIRONMENTAL GROUPS HAVE ALSO INDICATED THEIR SUPPORT.

I'M ALSO PLEASED TO ANNOUNCE THAT WE HAVE THE STRONG SUPPORT OF GOVERNOR MARTINEZ, THE CABINET, AND STATE AND COUNTY LEGISLATURES. THIS SUPPORT IS CRUCIAL TO ENACTMENT OF THE REQUIRED STATE LEGISLATION.

I'D LIKE TO THANK MY COLLEAGUE, BILL GRANT, FOR THE HELP HE'S PROVIDED, BUT MORESO FOR THE HELP HE'S ALREADY PLEDGED TO PROVIDE AS A MEMBER OF THIS COMMITTEE .

THE BROAD COALITION OF SUPPORTERS THAT WE HAVE BROUGHT TOGETHER MAKES ME OPTIMISTIC THAT EVERYONE CAN BE SATISFIED, AND THAT WE CAN PUT THIS ISSUE TO REST ONCE AND FOR ALL. I WILL DO ALL I CAN TOWARD THAT GOAL, AND WILL BE MORE THAN HAPPY TO PROVIDE TO THIS COMMITTEE ANY INFORMATION THAT YOU REQUIRE.

THANK YOU MR. CHAIRMAN.

Mr. NOWAK. Our next witnesses will be Mr. Henry Hanka, Government Resources Director for the Seaway Port Authority of Duluth, Minnesota; Mr. Larry Karnes, from the Michigan Department of Transportation; and Mr. George Ryan, President of the Lake Carriers' Association and American Iron Ore Association.

Gentlemen, you may proceed as you desire.

SAULT STE. MARIE, MI—REPLACEMENT LOCK PROJECT

TESTIMONY OF HENRY HANKA, DIRECTOR, GOVERNMENT RESOURCES, SEAWAY PORT AUTHORITY, DULUTH, MN; LARRY KARNES, MICHIGAN DEPARTMENT OF TRANSPORTATION; AND GEORGE RYAN, PRESIDENT, LAKE CARRIERS' ASSOCIATION

Mr. HANKA. Mr. Chairman, my friend and fellow Minnesotan, members of the Committee, my name is Henry Hanka. I'm the Resource Director for the Seaway Port Authority of Duluth, Minnesota, and I'm also Vice Chairman of the Great Lakes Commission and I Chair the Minnesota Delegation for Governor Purpich.

I represent those entities today. I am pleased to have the opportunity to appear before the subcommittee to discuss the proposed replacement lock project at Sault Ste. Marie, Michigan, and the related non-federal cost share issue.

My full printed remarks detail the position of the Great Lakes Commission and the Seaway Port Authority. My statement has been submitted for the record.

Mr. NOWAK. I just add that all of the statements will be admitted in their totality. I know the time element has been condensed, but we will have the opportunity to get back to you with further questions.

Mr. HANKA. Our position is basic and straightforward. The Soo Locks Complex is federally funded, federally built, federally operated and federally maintained.

It's used by American and foreign ships to move domestic and international cargos that have no relationship to the geographic location of Sault Ste. Marie.

Its operating viability has significant national defense and national security implications. It's definitely not in itself a port or a harbor.

The Water Resources Development Act of 1986, which authorized a new large lock at the Soo overlooked the Soo's historic, present and future role in American commerce.

We hardly concur with the conclusion that the lock is essential, but it must be built exclusively with federal funds.

The so-called non-federal share defined in the 1986 Act would require $89.6 million of the total estimated cost of $256 million.

Simply and frankly, this is not achievable for the Great Lakes States, if indeed the Great Lakes States are considered to be the beneficiaries.

Who are, then, the beneficiaries, and how do we define them? Are they the ore miners and grain growers in Minnesota, the dock workers in western Wisconsin, or how about the miners of low sulfur coal in Montana, or the agricultural processors in Nebraska and Iowa?

The locks physically exist in the State of Michigan, but the principal beneficiaries are the consumers of public power generated from coal in the lower peninsula, steel workers receive benefits in Iowa, Illinois, Indiana, Pennsylvania, as do flour millers in New York and other Eastern States.

Should they help foot the bill of a non-federal share? The basis behind full federal funding is the uniqueness of the Soo Lock project.

The St. Mary's River at the Soo is a major international waterway with substantial foreign vessel traffic. Canadian origin and destination traffic accounts for approximately 30 percent of the total traffic through the facility.

U.S. locks at the Soo are the only locks capable of handling commercial tonnage and have operated without a fee for over 100 years.

Another reason for advocating full federal funding is based on National defense and the need for critical raw materials.

The incapacitation of the existing lock would effectively remove approximately two-thirds of the current U.S. Great Lakes wheat hauling capacity.

Regional equity must also be recognized. Inland waterways lock and dam projects are presently funded at a 50 percent level from the Inland Waterways Trust Fund.

The Harbor Maintenance Trust Fund, financed by cargo fees on deep draft systems, including the Great Lakes, is available only for Corps of Engineers' operating and maintenance expense, not as a means to help fund the Soo Lock.

The Soo Lock constitutes an international waterway with commodity traffic dominated by iron ore, coal and grain. The non-federal share would be detrimental to the flow of international commerce.

Please realize that any cost recovery principle will create bilateral political problems and may alter long established commodity flow patterns.

We respectfully submit and request that the Water Resources Development Act of 1990 include a provision amending the existing Soo Lock authorizing legislation to reauthorize the lock to be constructed at full federal expense.

This Nation cannot wait for undetermined local sponsors to assemble the means to try to contribute $90 million. That simply is not going to happen. Thank you.

Mr. **Nowak**. Thank you very much.

Mr. Karnes, would you like to proceed with your testimony?

Mr. **Karnes**. Mr. Chairman, members of the committee, my name is Larry Karnes, and I'm responsible for marine transportation planning in the State of Michigan.

I am speaking today on behalf of the Governor of Michigan and the Michigan Department of Transportation. I appreciate the opportunity to address this subcommittee and discuss the water resources legislation currently being developed.

I also believe the Chairman has received letters directly from Governor Blanchard, State Senator Irwin, and State Representative Gagliardi concerning this issue.

The United States locks on the St. Mary's River connecting Lake Superior and Lake Huron are a vital link from the Great Lakes St. Lawrence Seaway system.

They've been operated by the U.S. Army Corps of Engineers since their transfer from State jurisdiction to the Federal Government in 1881.

The locks handle about 90 million tons of cargo annually and serve the industrial and agricultural heartland of North America.

The traffic is truly international and includes overseas commerce of both the United States and Canada, commerce between the United States and Canada, and domestic commerce of both countries.

The most commodity is iron ore, which accounts for about half the total traffic. The State of Michigan has consistently recognized the need to construct a second large lock to replace the two oldest locks which are functionally obsolete and deteriorated.

The dependents of the United States flagged Great Lakes fleet on the single existing large lock, the Poe, has reached a critical level.

Vessels representing about 70 percent of the cargo capacity of the entire fleet are too large to use any lock except the Poe.

If that lock is closed for any reason, accident, mechanical failure, or sabotage, the economic impacts would be severe.

The Corps of Engineers has studied the need for a second large lock and concluded the construction is justified, both economically and based upon considerations of national defense.

Michigan supports this conclusion, even though only about one-eighth of the traffic using the locks has an origin or destination in Michigan.

We are willing to accommodate the project within our state boundaries and believe the new lock is clearly in the national interest.

The Water Resources Development Act of 1986 authorized construction, but made the project subject to cost sharing requirements that we believe were meant to apply to local port projects.

The lock is not a port, no cargo is loaded or unloaded. The beneficiaries are widely disbursed throughout North America and other regions of the world.

It is not reasonable to expect a local community in the State of Michigan or in any other State to provide nearly $90 million in cost sharing for the project.

We believe the House recognized the unique function and importance of this project when it adopted H.R. 6 some four years ago.

It authorized the construction of the lock at full federal expense. We ask the House to reaffirm this earlier position and restore full federal funding for this project of National significance. Thank you.

Mr. **Nowak**. Thank you very much.

Mr. Ryan.

Mr. **Ryan**. Thank you, Mr. Chairman, Mr. Stangeland, and other members of the committee.

Even my summary doesn't need to be stated, I believe, since the previous two speakers have stated it as clearly as I could.

I would like to state that the Lake Carriers' Association representing over 97 percent of the ship owners on the Great Lakes fully agree with the statements presented.

We could not deliver the iron ore or the coal that's needed by our industry or our utilities of that single Poe Lock failed.

We support the need for a second lock, and we believe that the only option is fully federal funding. We have completed a 10-minute videotape, which I will provide to your staff and provide additional copies as needed, which gives a focus on this issue, and I would be available for any questions in writing or in person now.

Thank you, sir.

Mr. NOWAK. Thank you very much. When we look at this, you're sort of in a chicken and the egg problem. You're not going to get the report unless you've got a local sponsor.

You did very well in your testimony. You talked about the uniqueness of this project and the different jurisdictions that it serves and the inability of the corps, I guess it's about three years since those discussions first started, to identify "a local sponsor."

Really, it is a canal that serves all of America with great productivity increases not only for our exports, but also, of course, receiving all of that traffic through the lock.

We know what happened when we had the problem with the Welland Lock just a couple of years ago and the problems that has caused, and I guess it still is causing in trying to revive the kind of relationships we had with shippers.

I was trying to recall what in the district level report was the cost benefit ratio at that time. Do you recall? Does anybody recall that number?

I know it was favorable, and then, of course, no other work proceeded, I guess because of this search for a "user."

Mr. RYAN. I don't remember the figure. It was on the order of 3 to 1. It still has a favorable BC, that I am appraised of, even with inflation.

Mr. NOWAK. You know, we may have a different focus this year, too. As I mentioned before, reading Secretary Skinner's new transportation policy, he went on at great length to talk about being active in the world trade areas and upgrade our transportation resources so that we could both ship out and bring cargo in here in the most productive and cost effective manner.

If anything happens to the Soo Lock, and even if it still operates as it is, you've still got long periods of time where you're held up through that lock.

Hopefully, we can move forward and bring the corps in to look at this, and especially Secretary Skinner and the Administration, as a unique type of project.

We will pursue that, and as we need information, we'll get back to you.

Let me turn to Arlan Stangeland now for any questions.

Mr. STANGELAND. As you point out, you know, we recognize the uniqueness of the situation and called for full federal funding, but ran into opposition in the Senate and with the Administration.

I don't know how that climate has changed, if at all, and that's going to be our problem. I'm wondering have you looked or thought or considered increasing the tax on cargo or a fuel tax similar to what the inland barges pay for improvements on the inland waterway system as a vehicle, or a combination of the two as a vehicle to provide some cost sharing from the Great Lakes States area.

Is that an option that if we run into the same kind of opposition that we did under H.R. 6, do we have some wiggle room to be innovative and create some fund that can help us in the construction of needed facilities on the Great Lakes System?

Mr. RYAN. With respect to the tax which is presently at .04 percent to cover approximately 40 percent of the dredging costs, the administration, I believe, has already in the President's budget indicated they're going to triple that to .12 percent in order to cover all overhead costs of the corps, weather service, and several costs of government.

But it's not the tax, sir, and they're already increasing it to well over 100 percent, and that's for nationwide maintenance dredging.

I don't believe there's much wiggle room in getting it out of the maintenance fees, although I would certainly encourage that, because if we were to do the maintenance of the 1914 and 1918 built locks, that would cost over $80 million.

That would come from the maintenance fund; however, we don't believe that's the answer, because they're too shallow and they're not wide enough.

So it would be $80 million wasted from that fund. So perhaps $80 million could be removed from that fund with some justification very easily.

Concerning the fuel tax, since the Great Lakes are a part of the deep draft navigation system, and we have much Canadian traffic as well as international traffic, I don't see how that would work, because one would just purchase their fuel in Canada.

Mr. STANGELAND. Is there a possibility of a cooperative effort with Canada? It gets very complicated when you start dealing internationally, I understand, but what I'm trying to see is do you have any alternatives or options that we might pursue if we run into the same kind of situation we ran into with H.R. 6?

[No response.]

Mr. STANGELAND. It's something you might want to think about, and we can try to reaffirm, in fact, we will reaffirm the House position, but I don't know how successful we'll be.

Mr. NOWAK. I think it's a good thought, and I think Mr. Stangeland makes a good point, perhaps we could urge the corps to start looking at the international implication that Canada would face if we had a further problem with that lock as we go down the line.

It's a suggestion that is well, I think, suited for the corps to investigate, at least at this stage. Again, gentlemen, we will be back to you as we make progress with the legislative issue.

Thank you very much for appearing.

[Mr. Hanka's prepared statement; Mr. Karnes' prepared statement; and Mr. Ryan's prepared statement follows:]

TESTIMONY BEFORE SUBCOMMITTEE ON WATER RESOURCES
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
U.S. HOUSE OF REPRESENTATIVES

MARCH 14, 1990
WASHINGTON, D.C.

STATEMENT BY
HENRY K HANKA
SEAWAY PORT AUTHORITY OF DULUTH
AND
GREAT LAKES COMMISSION

My name is Henry Hanka - I am the Government Resources Director for the Seaway Port Authority of Duluth, Minnesota. The Seaway Port Authority of Duluth is a body politic and corporate created under and existing by virtue of the laws of the State of Minnesota. Among other things, the Seaway Port Authority is charged with the duty of promoting the general welfare of the Duluth port district, increasing the volume of commerce through the port, and promoting the safe and economical handling of such commerce. I am also the Vice Chairman of the Great Lakes Commission. The Great Lakes Commission is an interstate compact agency that specializes in research, policy analysis and technical studies in the areas of regional economic development, resource management and environmental quality. Its mission, founded in state and federal law, is "to promote the orderly, integrated, and comprehensive development, use and conservation of the water resources of the Great Lakes Basin".

I am pleased to have the opportunity to appear before this subcommittee to discuss the proposed replacement lock project at Sault Ste. Marie, Michigan and the related non-federal cost share issue.

Our position on this issue is straightforward: The Soo Locks complex is a federal facility---federally built, federally operated, federally maintained. It is used by American and foreign ships to move domestic and international cargoes that have no relationship to the geographic location of Sault Ste. Marie; its operating viability has significant national defense and national security implications, and it definitely is not in itself a port or a harbor. Its historic, present and future role in American commerce was overlooked in the Water Resources Development Act of 1986 (P.L. 99-662). A large, new lock at the Soo is critically needed. It must be built exclusively with federal funds.

The following statement supports our position.

Non-Federal Cost Share The Water Resources Development Act of 1986 (P.L. 99-662) authorized a new large lock at Sault Ste. Marie, Michigan. The most recent project cost estimate by the Army Corps of Engineers is $256 million. The total non-federal cost share for the proposed new large lock at the Soo is $89,600,000. The 25 percent up-front money to be paid during construction is $64 million and the additional 10 percent to be paid over a period of up to 30 years after construction completion exclusive of interest is $25.6 million.

This substantial non-federal cost share for the lock has become a major obstacle to progress on the project. The Great Lakes Commission has taken the initiative in the region to coordinate regional discussion of the lock project and the cost share issue. Over the past 14 months, two regional strategy sessions were held. A funding issues report was prepared which reviewed cost recovery options and cost share financing alternatives for the proposed lock. In January of this year, the Great Lakes Commission unanimously approved a position statement calling for full federal funding for the new lock.

Soo Locks The St. Marys River which connects Lake Superior with Lake Huron contains a rapids reach of about one quarter of a mile wide and three quarters of a mile long near the Lake Superior entrance. The fall of water ranges from 18 to 24 feet depending on water stage. In 1797, the first navigation improvements, a lock, canal and towpath, were constructed at the rapids. Prior to that for over a hundred years, fur traders and adventurers were required to portage around the rapids. Missionary, commercial and eventually military interests coalesced at the site sustaining Michigan's oldest permanent settlement, Sault Ste. Marie. The first true ship canal with two locks was built by the State of Michigan between 1853 and 1855. This State Canal functioned for over a quarter of century but as traffic and freight tonnage increased the need for more capacity became apparent. A new lock and new channel improvements were authorized by Congress and when the lock was completed in 1881, ownership of the old State Canal was transferred to the U.S. Government. Over the next 87 years, six more locks were built, five by the U.S. and one by Canada. Two of the U.S. locks were replacement locks. The total original cost and improvement/reconstruction costs for all the American locks and canals at Sault Ste. Marie has been around $100 million.

The history of the Soo Locks could be characterized as one of substantial cargo expansion. The Locks have played a vital role in the movement of commodities through the Upper Great Lakes system. In the early years grain, flour, copper, iron ore and wood products were the traffic mainstays. Iron ore, grain and coal eventually became dominant. In 1942 during World War II, 94.3 million tons of iron ore moved through the Soo Locks. The maximum all-commodity tonnage record was reached in 1953 at 128.5 million tons. Through

1989, the total tonnage carried through the Soo Locks was nearly 7.7 billion tons.

In 1946 Congress anticipated the need for a new Soo Lock. During the 1950's because of the size and maximum draft of many Great Lakes bulk carriers, the MacArthur Lock (opened in 1943) was accommodating nearly half of the freight traffic. With lock planning funds finally in hand by the late fifties, the Detroit District of the Corps of Engineers explored several lock chamber dimensions geared to expected trends in Great Lakes bulk carrier shipbuilding. Several upward size adjustments were made and in July of 1964 a contract was let. The new $35 million Poe Lock at 1,200 feet long, 110 feet wide and built between two existing locks was dedicated in June 1969.

The Davis and Sabin Locks, because of restricted depths, have been relegated to servicing ballasted vessels, although in recent years the Sabin Lock has been used only sparingly. After about 70 years of useful life, the Davis and Sabin Locks have deteriorated due to natural causes and that their structural stability is threatened. A stability analysis indicates that the walls of both locks are unstable under current design criteria. The work needed to continue operation of the Davis and Sabin Locks is beyond the scope of usual maintenance activities and the District Engineer estimates that closure of both locks would likely occur in about five to ten years. The primary navigation problem associated with such closure is that the MacArthur and Poe Locks would be the only remaining facilities.

The new Poe Lock has handled about 60 percent of Soo tonnage while the MacArthur Lock has accounted for 35 percent. With the availability of the Poe Lock, the U.S. Flag Great Lakes fleets began a modernization program. From 1972 to 1981, thirteen 1,000-foot supercarriers were built with capacities ranging from 52,000 to 64,000 gross tons when transiting the Poe Lock. Because of vessel length and/or beam dimensions, a total of 29 lake carriers are restricted to the Poe Lock. These vessels represent about two-thirds of total U.S. fleet carrying capacity. This total dependence on the Poe Lock is a principal cause for concern among shippers, ship owners, ports and the thousands of people whose jobs rely on the cargoes which move thru the system. Also potential vessel congestion with resulting ship delays at the two principal locks is another concern. Congressional interest in the issue as expressed through resolutions from the Senate Environment and Public Works Committee goes back to 1969 and again in 1976. The resolutions authorized a study relating to improvements in the Great Lakes Connecting Channels and Harbors including the provision of additional lockage facilities and increased capacity at the Soo Locks.

New Lock at Sault Ste. Marie, Michigan A final Interim Feasibility Report and Environmental Impact Statement (EIS) focusing on the lock matter was issued by the Corps Detroit District in March 1985. A September 1985 Final Feasibility Report and EIS incorporated the Interim Report's recommendations for a new lock at the Soo but also recommended improvements for Duluth/Superior Harbor and the Upper St. Marys River. The recommendation for a new large lock to be constructed on the site of the Davis and Sabin Locks was determined, compared with several alternative plans, to best "minimize the total number of annual delay hours during the period of analysis, eliminate operating risks by providing a second lock for all vessel sized in the American Great Lakes fleet and provide a total tonnage capacity at the St. Marys Falls Canal sufficient to meet potential national defense demands". The proposed lock would have dimensions between the miter gates of 1,294 feet in length, 115 feet in breadth and 32 feet in depth over the miter sills.

Full Federal Funding The basis for full federal funding is the uniqueness of the Soo Lock project. The $256 million project is one of the most expensive deep draft projects currently authorized in the country. The St. Marys River is a major international waterway with substantial Great Lakes and ocean vessel traffic and forms the international boundary between Canada and the United States. Ships of Canadian origin and destination account for about 30 percent of total traffic through the facility. The U.S. locks are the only locks capable of handing commercial tonnage and have been operated without a transit fee for more than 100 years. This area is a shared navigable waterway with a continental-territorial arrangement unlike any other river for which the U.S. has jurisdiction. It is not a port or harbor project with a local group of beneficiaries and thus should not be subject to cost sharing.

Any consideration of beneficiaries must start with people whose jobs rely on the production and transportation of low-sulphur coal in Montana; the production of steel in Illinois, Indiana, Ohio and Pennsylvania, and the processing of agricultural commodities on the Eastern Seaboard, to say nothing of the obvious economic importance of ore mining in Minnesota and power generation in Michigan.

Another reason for advocating full federal funding of the Soo Lock is based on national defense and critical raw materials need. The incapacitation of the existing Poe Lock would effectively remove about two-thirds of the current U.S. lake fleet hauling capacity. The remaining vessels capable of transiting the other locks could not even begin to meet the needs of a strong economy.

The Soo Lock system is a vital component in this nation's defense planning and structure. In case of a prolonged wartime shutdown of the Poe Lock, the United States could not depend on iron ore sources overseas or even from Labrador and Quebec. Also, existing railroad capacity and infrastructure is inadequate, insufficient and unable to serve as a transportation alternative for the raw material needed by lower Great Lakes steel mills. It's no coincidence that the Soo Locks complex is a high defense security installation and has all outward appearances of a military facility. The facility is under the operations jurisdiction of the Secretary of the Army. During World War II, combat military units were stationed nearby to protect the Locks from possible sabotage and even aerial attack. Obviously, the Soo Locks must be distinguished from other "deep-draft" harbor projects.

A regional equity problem also exists with the required funding arrangement for the proposed new Lock. Inland waterways lock and dam construction projects are presently funded by one-half from the Inland Waterways Trust Fund which is financed by a towboat fuel tax. The Harbor Maintenance Trust Fund, which is financed by an ad valorem cargo fee on the deep-draft system including the Great Lakes, can be used only for Corps of Engineers operations and maintenance expenditures and is not available as a means to help fund the Soo Lock.

Full federal funding would be consistent with Congressional efforts to eliminate both U.S. and Canadian St. Lawrence Seaway tolls. Over the last decade, a repayment requirement for the interest and principal on the two U.S. Seaway locks construction debt was eliminated by Congressional action. U.S. Seaway tolls, which began in 1959, were thus dedicated solely to operations and maintenance costs but P.L. 99-662 effectively eliminated these tolls through a rebate procedure. The same bill directed consultative talks with Canada aimed at eliminating all Seaway tolls. The Seaway and the St. Marys River are both international waterways with commodity traffic dominated by iron ore, grain and coal. U.S. policymakers need to realize that applying cost recovery principles to non-port navigation projects will create bilateral political problems and may irrevocably alter long-established commodity flow patterns.

The Great Lakes Commission's position is that full federal funding for the proposed second large lock at Sault Ste. Marie is warranted and needed now. While the Sabin and Davis locks continue to deteriorate, construction of the new lock should begin soon.

Otherwise, a day of reckoning is approaching with potential serious consequences for the regional and national economies.

We respectfully request that the Water Resources Development Act of 1990 under development in the House of Representatives include a provision amending the existing Soo Lock authorizing legislation (P.L. 99-662) to reauthorize the lock to be constructed at full federal expense. The full federal funding provision was accepted by the full House of Representatives in 1986 in H.R. 6. What was correct then remains the best approach now.

TESTIMONY SUBMITTED BY THE STATE OF MICHIGAN

BEFORE THE SUBCOMMITTEE ON WATER RESOURCES
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
U.S. HOUSE OF REPRESENTATIVES
WASHINGTON, D.C.

PRESENTED BY LARRY B. KARNES
MICHIGAN DEPARTMENT OF TRANSPORTATION

March 14, 1990

My name is Larry B. Karnes and I am responsible for marine transportation planning for the State of Michigan. I am speaking on behalf of the Governor of Michigan and the Michigan Department of Transportation. We appreciate the opportunity to address this subcommittee and discuss the proposed construction of a replacement lock at Sault Ste. Marie.

The Soo Locks are located in the St. Marys River, which connects Lake Superior and Lake Huron. The locks allow vessels to overcome a 20 foot drop in the river over the St. Marys Falls at Sault Ste. Marie. The first navigation canal and lock bypassing the falls was opened in 1798 on the Canadian side of the river, and the State Canal was opened by Michigan in 1855. The State Canal was transferred to the federal government in 1881, which has since owned, maintained, and operated the canal and locks. The present system of locks consists of four parallel locks under the jurisdiction of the U.S. Army Corps of Engineers and a single small lock managed by Parks Canada. The Canadian lock was closed in 1987 because of a major structural failure and its future is uncertain.

Marine traffic using the locks has grown dramatically over the past century and has averaged over 90 million tons annually during the past decade. Patterns of traffic include U.S.-overseas, Canada-overseas, U.S.-Canada, U.S. domestic, and Canadian domestic. Ships fly the flags of not only the United States and Canada, but nations throughout the world. Three commodities - iron ore, grain, and coal - consistently account for 90-95 percent of all tonnage passing through the locks. The most important commodity is iron ore, which comprises about half of the total tonnage.

A major technological change in Great Lakes shipping occurred during the 1970s. As a result of the opening of the new Poe Lock in 1968, vessels were no longer limited to the maximum dimensions of 730 feet in length and 75 feet in beam (width). With the new lock in operation, vessel dimensions could be increased to 1,000 feet in length and 105 feet in beam. A change in regulations now permits vessels of 1,100 feet in length, although the longest vessel on the Great Lakes is 1,014 feet in length.

Major U.S. Great Lakes carriers embarked on fleet improvement programs which included building new 1,000′ vessels and lengthening older vessels to take advantage of the larger capacity lock. The current U.S.-flag Great Lakes fleet totals about 70 vessels, including 13 of 1,000′ or more, and an additional 16 which are restricted to use of the Poe Lock. These 29 vessels represent 40% of the fleet in number but nearly 70 percent of the cargo capacity.

Reliance on the Poe Lock has now reached a critical level and its disablement would result in severe economic consequences. Delays are occasionally incurred under normal conditions because of heavy traffic using the Poe. These delays may only be inconvenient and result in a small added cost to the shipper. Closure of the Poe Lock, however, due to accident, mechanical failure, or sabotage, would be disastrous to the Great Lakes economy. Steel mills and electric utilities would be the first industries impacted, particularly steel, because of their dependence upon use of the Poe. All shippers, including grain, petroleum and other commodities, would soon be affected due to increased competition for vessels and congestion at the other usable locks.

Consideration of a new large lock at Sault Ste. Marie was a major component of the Great Lakes Connecting Channels and Harbors Study originally authorized by Congress in June 1969, reaffirmed in April 1976, and conducted by the Corps of Engineers. The Final Interim Feasibility Report was completed in March 1985, and revised in March 1986. Findings of the study indicate that construction of a second large lock, with dimensions similar to the Poe, is justified both economically and based upon considerations of national defense. A new lock would maximize economic efficiency, assure sufficient capacity to service potential national defense requirements, eliminate risks associated with dependence upon a single large lock, and is part of the National Economic Development Plan.

Michigan strongly supports the conclusions of the study to build a new lock, even though only about one-eighth of the traffic using the locks has an origin or destination in Michigan. State agencies worked with the Corps of Engineers during the study process to consider the impacts of construction and disposal of excavated material. We are willing to accommodate the project within our state boundaries and believe it is clearly in the national interest.

The Water Resources Development Act of 1986 (P.L. 99-662) authorized construction of the new lock (Section 1149). The authorization, however, was subject to cost-sharing requirements which we believe were meant to apply to local port projects where beneficiaries of a project are more readily identifiable. The lock is not a local port project - no cargoes are loaded or unloaded but are merely passing through an international waterway enroute to ports. The beneficiaries of the project are widely dispersed throughout North America and other regions of the world. It is not reasonable to expect the local community, the State of Michigan, or any other state to provide the estimated $86 million non-federal share of construction costs.

We believe the House of Representatives recognized the unique function and importance of this project when it adopted H.R. 6, the bill which lead to the Water Resources Development Act of 1986. H.R. 6 included authorization for lock construction at full federal expense. We ask the House to re-affirm this earlier position and restore full federal funding for this project of national significance.

Thank you.

TESTIMONY SUBMITTED FOR

THE SUBCOMMITTEE ON WATER RESOURCES

HEARINGS ON PROPOSED AUTHORIZATIONS FOR THE WATER RESOURCES DEVELOPMENT PROGRAM OF THE U.S. ARMY CORPS OF ENGINEERS

Washington, D.C.
March 7, 1990

By
George J. Ryan
President
Lake Carriers' Association

614 Superior Avenue, N.W.
915 Rockefeller Building
Cleveland, OH 44113-1306

TESTIMONY BEFORE THE SUBCOMMITTEE ON WATER RESOURCES

By: George J. Ryan, President
Lake Carriers' Association

Lake Carriers' Association represents 14 United States-flag Great Lakes fleets. The 14 member fleets have a combined total of 65 vessels with a per-trip capacity of 1,832,895 gross tons of bulk cargo. These vessels comprise more than 98 percent of the tonnage of United States Great Lakes vessels and approximately 18 percent of all United States self-propelled vessels of 1,000 gross registered tons or larger engaged in the domestic trade.

Thank you for this opportunity to testify on the Water Resources Development legislation now in preparation. As you may know, the Senate's Water Resources Development Act of 1990 includes a provision for full Federal funding of a second large lock at Sault Ste. Marie, Michigan. Admittedly, the provision states that the project would be eligible for full Federal funding only if the Secretary of the Army and the Chief of Engineers cannot identify a local sponsor by June of 1991. However, it has long been LCA's position that this project is so unique and benefits so many parties that it will be impossible to fairly assign local sponsorship to any one locality. I trust that the House will agree with our position and include similar language in its water resources bill.

We must move forward on this project. Poe-class vessels now represent nearly 70 percent of U.S.-flag carrying capacity on the Lakes. Should the Poe Lock be inoperable for a lengthy period of time the movement of iron ore and coal would slow to a trickle on the Great Lakes.

In general, LCA supports cost sharing for the new harbor construction. In most instances, a port or harbor improvement will benefit a clearly-definable audience, so the cost can be assigned equitably.

However, the new lock (or for that matter, any lock or connecting channel) cannot be considered a port or harbor. No cargo is loaded or unloaded during transit. Locks and connecting channels exist solely to facilitate cargo movement to ports and harbors.

Congress recognized this important distinction when the replacement lock was authorized in 1986 by directing the Chief of the U.S. Army Corps of Engineers to determine the most appropriate way to fund the new lock. LCA believes a thorough evaluation of all the facts will mandate full Federal funding.

The national defense role of the Soo Locks alone justifies full Federal funding. Despite the rationalization of the domestic steel industry, 73 percent of the nation's steelmaking capacity is still located in the Great Lakes region. If this nation ever fights another conventional war, its ability to arm and resupply its military forces will depend on the free flow of iron ore from Minnesota and Michigan to Lower Lakes steel mills. During the peak years of World War II and the Korean Conflict the ore float topped 100 million tons. The U.S.-flag Lakes fleet of 1990 essentially could meet such a demand, but only if a lock capable of handling Poe-class vessels is operational. Should the Poe Lock be out of service for a lengthy period of time, the ships small enough to transit the other locks could not even begin to meet demand, even if given emergency permission to sail year-round.

Nor would a waiver allowing Canadian vessels to participate in the domestic ore trade (as was the case during the Korean Conflict) offset the loss of U.S.-flag Poe-class vessels. Maple Leaf fleets remain geared toward the grain trade; straight-deckers predominate their roles. However, with only five straight-deckers left in the U.S.-flag fleet, few Huletts or other shore-side unloading systems are still operable at U.S. Lakes ports. Canadian straight-deckers could offer little help.

Canadian self-unloaders would be greatly handicapped by their Seaway dimensions. With a maximum length of 736 feet, their average carrying capacity is 29,866 gross tons per trip, not even half the hauling power of a 1,000-footer.

National defense considerations aside, the multi-regional and international role of the Soo Locks are another argument in favor of full Federal funding. With so many states (and not just those bordering the Lakes) and Canadian provinces benefiting from the Soo Locks, it would be a miscarriage of justice to expect any one locality or even state to act as the local sponsor.

A quick analysis of trade through the locks substantiates that assertion. For example, in 1989, nearly 16 million net tons of low-sulphur coal mined in Montana and Canada moved through the Soo Locks. Of the 11.8 million tons of western U.S. coal going through the locks, it's doubtful more than a few cargos were carried in a non-Poe-class vessel. Unless there's a back-up lock to handle Poe-class vessels, closure of the Poe Lock would cut these mines off from major markets; the increased cost of railing the coal would probably force their Michigan and Canadian customers to switch to eastern coal.

The export of grain grown in the Dakotas and western Canada depends on the Soo Locks. Every one of the 400,000,000 bushels of grain loaded at Duluth/Superior and Thunder Bay traveled through the locks. If the grain trade rebounds to previous levels, the float could top a billion bushels.

And what of the eight Great Lakes states themselves? Does any one state dominate the locks trade to the extent that it can reasonably be expected to act as the local sponsor?

The numbers say "No." A review of origin and destination ports for cargo transiting the Soo Locks shows Minnesota with 20 percent; Ohio, 15 percent (some of which is then transshipped to West Virginia, Pennsylvania and Kentucky); Michigan, 13 percent; Wisconsin, 12 percent; and Indiana, 9 percent. The remaining 30 percent belongs to Canada and overseas.

The national defense, multi-regional and international role of the Soo Locks and the replacement lock that will keep the system efficient well into the 21st century more than justify full Federal funding. LCA urges the Chief of the Corps of Engineers to recommend the same.

The second area of concern for the Lakes shipping industry is the starting date for construction. The latest Corps projections indicate groundbreaking would be in 1992 at the earliest if appropriations came in 1989. Completion of the project would not be until 2001.

LCA believes that timetable can be advanced since the new lock will essentially be a twin of the existing structure. The only major difference will be width; the Poe Lock is 110-feet wide; the new lock is expected to be 115-feet wide. Lengthy environmental impact studies are not warranted, especially since the new lock will not allow larger vessels to be built.

As the past three navigation seasons have graphically illustrated, a healthy economy demands full utilization of Poe-class vessels. However, as American industry becomes more and more competitive, reliance on the Poe Lock will endanger the gains made. LCA urges the House to include a provision in its water resources bill authorizing construction of a second Poe-sized lock at full Federal expense.

[The following items relating to the Sault Ste. Marie Replacement Lock Project follow:]

STATE OF OHIO
OFFICE OF THE GOVERNOR
COLUMBUS 43266-0601

RICHARD F. CELESTE
GOVERNOR

March 12, 1990

The Honorable Henry J. Nowak
Chairman
Subcommittee on Water Resources
Committee on Public Works and Transportation
B-370A Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Nowak:

As Governor of Ohio, I wish to support the position of the Great Lakes Commission and the state of Michigan in obtaining full federal funding for construction of a new lock at Sault Ste. Marie, Michigan. The locks at Sault Ste. Marie are a link in an international waterway system that serves the entire Great Lakes Region of the United States and Canada. For this reason, construction of a new lock at Sault Ste. Marie should not require a local sponsor as specified in the Water Resources Development Act of 1986.

The need for a new lock at Sault Ste. Marie is widely recognized. Of the four locks at Sault Ste. Marie, only the Poe Lock is large enough to accommodate the 1000 foot freighters which make up nearly 70 percent of the U.S.-flag Great Lakes fleet's capacity. The 1985 U.S. Army Corps of Engineers feasibility report concluded that construction of a new Poe sized lock is economically justified and important in terms of national defense. The Water Resources Development Act of 1986 authorized construction of the new lock, but made such construction subject to local cost-sharing requirements. This local cost share requirement is inequitable since the locks at Sault Ste. Marie benefit both interstate and international trade.

A local cost-sharing requirement for lock construction at Sault Ste. Marie ignores the wide ranging benefits of Great Lakes-St. Lawrence Seaway navigation. Canadian and overseas destinations represent 30 percent of total lock transits. Ohio destinations account for 15 percent of lock transits, but the cargo bound for Ohio also feeds industries in Pennsylvania, West Virginia, and Kentucky. Clearly, the Sault Ste. Marie locks are just one part of a waterway system that serves the vast industrial heartland of the United States.

I urge you to consider the far reaching benefits that result from the transit of vessels through the Sault Ste. Marie locks. Since the Soo locks benefit both interstate and international trade, I urge Congress to support full federal funding for the construction of the new lock.

Sincerely,

Richard F. Celeste

Richard F. Celeste
Governor

AMERICAN GREAT LAKES PORTS

The United States Members of the
International Association of Great Lakes Ports

BURNS HARBOR
Indiana
CHICAGO
Illinois
CLEVELAND
Ohio
DETROIT
Michigan
DULUTH
Minnesota
ERIE
Pennsylvania
GREEN BAY
Wisconsin
LORAIN
Ohio
MILWAUKEE
Wisconsin
MONROE
Michigan
OGDENSBURG
New York
OSWEGO
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March 14, 1990

Hon. Henry Nowak, Chairman
Subcommittee on Water Resources
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

The American Great Lakes Ports is an association consisting of the American members of the International Association of Great Lakes Ports, reaching from Duluth, Minnesota and Superior, Wisconsin in the west to Oswego and Ogdensburg, New York, in the east. We as a group fully support the recommendations of the Great Lakes Commission and the testimony of Henry K. Hanka in behalf of full federal funding of the replacement large lock at Sault St. Marie.

As Mr. Hanka's prepared testimony for your Subcommittee has indicated, the Soo Locks link North America's largest inland body of water, Lake Superior, with the rest of the Great Lakes and the St. Lawrence Seaway outlet to the sea. The Soo locks are the lifeline for passage of large tonnages of raw materials needed for U.S. industries important for defense and commerce. They are a major artery for American farm exports to populations abroad.

In keeping with the national interest, the federal government owns this facility just as it does defense installations elsewhere. The Army operates and maintains it and is responsible for its defense. Lock replacements over the past century have been federally funded. The Army Engineers have cited defense as a reason for needing the new replacement lock.

As Mr. Hanka also pointed out, the economic impact of this internationally-used waterway extends far beyond the relatively small community at Sault St. Marie, Michigan. The Soo replacement lock is not a port or harbor project. Its funding requirement under the 1986 Water Resources Development Act did not reflect the Soo system's prime significance, which is in the national defense and broad regional and international areas.

We respectfully request that in the 1990 Act, these elements be taken into account so as to provide for full federal funding of the replacement Soo lock.

Sincerely,

Lewis Gulick

Lewis Gulick
Director,
Washington Office

Mr. **Nowak**. We will recess this hearing and adjourn to Room 2167 at approximately 2:30.

[Recess.]

Mr. **Nowak**. The subcommittee will come to order.

Our next witness is Mr. Richard DuHaime, Freeholder Director of Passaic County, New Jersey.

Mr. DuHaime, welcome before the subcommittee and please proceed.

PASSAIC RIVER, NY AND NJ

TESTIMONY OF RICHARD DuHAIME, FREEHOLDER DIRECTOR, PASSAIC COUNTY, NJ

Mr. **DuHaime**. Thank you, Congressman. I appreciate it.

For those of you who do not come from New Jersey, freeholders are county executives. My name is Richard DuHaime, and I'm the Freeholder Director of the County of Passaic.

I represent approximately one-half million people. There is a tremendous need in this area for this tunnel. It is a flood ravaged area, we have floods every year, sometimes two and three times a year, television reports, every year they come out with their crews to show the areas of Wayne and Pompton Lakes and Pequannock that are under water every year.

These floods affect not just Passaic County, but Bergen and Morris and Essex, a very densely populated area in the most densely populated State in the union.

Major floods come approximately every 15 years. The devastating one was in 1984, before that in 1967, and the granddaddy of them all was in 1903, when the city of Patterson, the third largest city in the State of New Jersey, was under water.

We cannot tolerate this type of flooding any longer. In 1984, there was tremendous devastation. Millions and millions of dollars of businesses and homes lost, and four people lost their lives.

We cannot tolerate this type of misery that the flooding causes any longer. There are many I see that are against this project.

I do not believe any of them live in the area of this devastation. The freeholders in Passaic County have consistently voted in favor of this project.

We have had at least five resolutions on it, and they have all been unanimously passed in a bipartisan fashion. Let me just say to you, Congressman, that this is a very inexpensive project in comparison to the costs associated with these floods and what it does to the residents of our area of the United States.

We strongly support and urge this project to go forward with as much speed as possible. I thank you very much for your time and courtesy.

Mr. **Nowak**. Thank you very much. You mentioned the three counties. Have all three counties joined in the project and favorably looked at it?

Mr. **DuHaime**. I speak only for Passaic County.

Mr. **Nowak**. But this is a statewide project?

Mr. **DuHaime**. It is a State project that affects those four counties, yes, Congressman.

Mr. **Nowak**. All right. Let me turn to Arlan Stangeland.

Mr. STANGELAND. Thank you, Mr. Chairman.

Welcome, Mr. DuHaime. I gather you're talking in favor of a flood control project, but I didn't hear any specifics.

Mr. DUHAIME. We would like to see the tunnel, the inlet project, from Wayne, Pompton Lakes, Beatty's Dam to Newark Bay. We do not want to take the misery of one area and give it to another area; we want to take it directly into the bay so it will affect no one.

Mr. STANGELAND. Okay, thank you.

I have no further questions at this time, but we may want to put some questions in writing later, Mr. Chairman.

Mr. NOWAK. We will leave the record open for that purpose. I know your time is short with us here, and we will have the opportunity to go through all of the testimony, and as we develop questions in our mind, we'll have sufficient time to get back to you or to your staff for specific answers.

Mr. NOWAK. Let me now turn to Robert Roe, who is really the father of this Water Resources Subcommittee and had been its past Chairman and certainly has followed this project along with all the others for many, many years, and, being an engineer himself, has a great depth of knowledge that he has given to the committee in his leadership of the House.

Congressman Roe.

TESTIMONY OF HON. ROBERT ROE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. ROE. I thank you, Mr. Chairman.

I want to apologize to the people from New Jersey that came down, both pro and con on this program, but also explain to you that around here, sometimes you don't always get the room you want, and the scheduling was changed 50 different times, so I also want to thank Congressman Nowak for being able to get this room, which is the main meeting room, arranged for us so we could sit down and discuss this as intelligent human beings.

For the members of the committee, the Passaic County and the northern New Jersey program, the Passaic River Flood Tunnel, is a major program before us which, as you know, has now been approved and recommended at least by the White House and by the Corps of Engineers.

We've worked on this flood control program in the Passaic River for the last, I have personally, for the last 30 years or more.

I think the point that was made by Freeholder DuHaime that nobody wants to take one problem and visit it to another, there's no sense in doing that.

But let me speak both to the members and to the people that are in this room. First of all, number one, the number of counties affected are eight, and there are 117 cities and communities and municipalities by this particular problem.

It is the second, if not the first, most difficult worst flood program problem that we have in the entire Nation, I'd say, number one.

It's interesting for me to note how many people have lost their lives in this problem time and time again in this particular region, and I want to impress upon our people that are here, if we were to have a flood on the order of the magnitude of 1903, keep in the back of your mind if you know anything about Patterson, particularly if you're in that area, it literally flooded the City Hall in Patterson, as extraordinary as that may sound.

I remember as a kid living in this area, I've lived in this area all my life, particularly where the Pequannock River runs into the Passaic, when that area flooded, it used to take about two days or two and a half days for that area to flood.

Now, because of the building that has taken place all over that basin, that river floods in a matter of a couple of hours, and water is all over the place.

I've heard so many different tales about this and tales about that, and this is going to affect that, and we don't want it here, and I would respectfully suggest to the members of the committee and also the folks that will be participating in the testimony today, I have a plaque on my desk that says more mistakes are made from lack of facts than from poor judgment.

I've had it there for 30 years. Every time I think I'm making an error in judgment in some public policy and I sit and reflect, I look at that plaque, and it says to me more mistakes are made from lack of facts than from poor judgment.

So I would hope that we would ask our questions, get to the point of the facts, and then go on from there.

Let me conclude, if I may, Mr. Chairman, with the following observations. We have tried now and spent tens upon tens of millions of dollars from the Federal Government and the State Government, going through every conceivable type of plan that we can think of, plan C, plan 2B, now the final plan that we've got before is the tunnel plan.

Bob Roe, as Chairman of this committee, wrote into the law four or five years ago a half a dozen of the items we're dealing with, Beatty's Dam, Molly Hansbrook, we wrote in the buy-out.

The buy-out is no new plan that's been devised by the coalition, the buy-out plan was written into the law, and Bob Roe designed and wrote it into the law to be used as auxiliary tool in trying to resolve the problems that we have in that particular river basin area.

We have tested that out. We have tried that out. Part of the problem that we're faced with at the moment is the average aggregate cost of buying those homes out, and we've tested the program through Federal and State Government in the towns of Wayne, Lincoln Park, Pompton Plains and Pompton Lakes.

We've bought, I believe, something on the order of about 68 or 72 homes. The average price of those homes are about $84,000, even including the relocation cost, which is added to that.

There is no place in northern New Jersey that people can sell their homes that are in the flood area and move out from that area and buy another home in the northern part of the State of New Jersey.

There aren't any homes for sale for $84,000 whatsoever. Many of those folks have moved out of that area and have moved to Pennsylvania, some have gone to Florida, in the test work that we have done.

Now, in this buy-out program, the buy-out program is a legitimate part of the overall plan that we're talking about and should be implemented, at least in part.

But the assumption that buying out homes in that area is going to solve the flood control problem that we're faced with is totally, absolutely inaccurate and not true, and I hope you folks understand that.

There is no provision made to buy out the commercial properties, the factories and everything else involved, and I've got news for you.

Those are people's jobs, and they amount to billions of dollars. Now, what kind of common sense does it make to try to eliminate some homes but let the rest of it all flood?

To me that doesn't make any sense. The second point that's involved are utilities. We're supposed to be environmentalists.

We're supposed to be doing a quality job in protecting the environment in the area. Did you know that in many of those sewer plants, when we get the floods that take place that were discussed so far, that they scour out those plants?

The sewage goes right out of the plants down into the Pequannock and the Passaic River. Do you know that the water intake for the Passaic Valley water commission that services about a third of the northern part of the state, certainly in the Passaic County area, comes from the Passaic River, per se?

It is pumped out of that very same river for the water supply. Did we know those facts? Those are the facts. Now we come back and we say one more thing.

What about your utilities? What about your infrastructure? How do you get fire trucks through, how do you get police people through, how do you get ambulances through?

It's going to flood, because we think that there's a simple solution of buying out homes. One more point, and then I'll defer to some other members.

Let me make another point to you. In the areas of Nutley and Belleville, I read the resolutions being adopted by the governing body, and I respect everyone that's in government and our citizens, but, you know, it's interesting to me, if we can perfect what we're trying to do to run that outfall line down to Newark Bay, it will have no effect whatsoever upon either Nutley or Belleville or any of the areas in Bergen County that have been concerned.

It would have no effect upon it whatsoever. Now, those are the basic facts and the truths behind the area.

One other question, if I may, Mr. Chairman. I know this is a little lengthy, but forgive me. Another point of view is that we're taking the water out and we're not going to be recharging the ground water.

You're not going to be taking a drop of water out of that area unless there's a catastrophic flood. You're not going to take the water out. It's going to stay there.

Now, I can tell you folks, and I'm probably talking too much now, but I can tell you one thing. The Federal Government has exhausted every possible way we can think of to try to resolve this problem, and I can assure you, and remember what I tell you today, that if we ever get a hurricane on the level of that Hurricane Alice that hit just below that Passaic River Basin 10 years ago, the damage will be into the billions and the loss of life will be extraordinary at that point.

That is the order of magnitude of the issue that is facing us at this point. So let me suspend at this point, if I may, Mr. Chairman, and perhaps some of our other members such as Congressman Gallo is here, and I know that Congressman Torricelli is on his way, but I'd like to defer until we can respond to further questions from some of our folks that are here today.

Mr. NOWAK. Thank you very much.

Pending the arrival of Congressman Torricelli and others, let us proceed until their presence is noted.

We'll invite Dr. Ella F. Filippone, who is Executive Administrator for the Passaic River Coalition, if she'd like to take the witness table, and your testimony, Doctor, will be incorporated in the record, and you may proceed as you so desire.

TESTIMONY OF ELLA F. FILIPPONE, EXECUTIVE ADMINISTRATOR, PASSAIC RIVER COALITION

Dr. FILIPPONE. Thank you, Mr. Chairman, members of the committee, and, of course, our beloved, esteemed Congressman Roe.

Many, many hours have been spent with our Congressman on many important water resources issues, and it is always a pleasure to work with our esteemed Congressman.

It is, however, unfortunate when that moment comes when we have to differ. However, this being a democracy, we differ, and we differ with many of the things that he said just now.

Before I begin to comment, I would like to present to the committee, and I gave my word to these two municipalities that I would present these statements to you, the Township of Milburn in the Upper Passaic River Basin has passed a resolution in opposition to this plan, and I would like to present this to you.

Mr. NOWAK. Without objection, they will be incorporated in the record along with your prepared statement.

Dr. FILIPPONE. We also have a letter from the Honorable Frank E. Rogers, the Mayor of the town of Harrison, a public servant who has served the longest of all the mayors in the State of New Jersey.

Mayor Rogers has written a letter to the committee, attention to you, Chairman Nowak, with the resolution passed unanimously by this small town on the Passaic in Hudson County in opposition to the tunnel plan.

Mr. NOWAK. It will also be accepted in the record without objection.

Dr. FILIPPONE. Since you have a copy of my statement, we have also submitted to you for the record not only the statement, but a variety of other materials, including resolutions from the three counties in the State of New Jersey, Essex County, Bergen County, and Hudson County, who all oppose this project.

There are, as Congressman Roe had indicated, 118 municipalities in the Passaic River Basin. A vast majority do not accept the tunnel project as the viable solution to flooding.

Ten years ago, we appeared before this committee, and we discussed a plan which was rejected. Never did anyone who was working on water resources in the Passaic River Basin ever intend to say that we do not have a flooding problem.

We recognize it, and we would like to see this problem corrected immediately. The Passaic River Coalition, as I mentioned in my statement, has attended every meeting with the Army Corps of Engineers where the public was invited.

We have met with them at private meetings to try to solve this problem, and we must unequivocally state that they have been unresponsive to the environmental components and the consensus statement that appeared in the Water Resources Development Act of 1986.

They have not recognized a Congressional mandate that is found in the various sections of the Clean Water Act. The plan that was supposed to be presented to you today was not to be a linear program focusing on one type of solution; it was to be a water resources management program.

The tunnel plan is a very singular project. It takes water from one area and dumps it into another. It is a large pipe, it does not do the job, the corps has not looked at the environmental elements, it has totally flaunted the State of New Jersey's Wetlands Act, and it has flaunted the directive under section 404 that this Congress has many, many times endorsed with regard to the preservation of the inland wetlands of any river system, and in this matter, we are talking about the Passaic.

In the Passaic, under the tunnel plan, 900 acres of wetlands will be either destroyed or degraded. There is no plan to substitute the loss of these valuable wetlands.

The tunnel will seriously impact three sole-source aquifers designated under Section 1424E in the Central Passaic and the Highland area.

Again, I must also point out to you, and I know that our Congressman understands what I'm saying now, if the environmental impact statement and the engineering documents are correct, or if the corps is telling the facts, that tunnel is going to be triggered at the one year storm or better, and that is a frequent user.

Fifteen days a year the corps has told us they will use that tunnel, and if that doesn't draw down our ground water, the hydrogeologists throughout northern New Jersey and of the universities don't know what they're talking about.

We are seriously concerned because 95 municipalities, close to a million and a half people, depend on ground water, this ground water that will be syphoned off by this tunnel in the Upper Passaic Basin and the Highlands.

We have looked at the economics of the corps program. Now, I want to tell you I've lived in northern New Jersey, as I know you have, Congressman, all of my life.

I grew up in the lower valley in the Township of Lyndhurst. In the economic analysis, the corps puts $4,500 for the acquisition of an acre of land in that urban area.

I can tell you if we can get land for $4,500 an acre in the Township of Lyndhurst or in North Arlington, we should run and buy it, because the town has just spent $54,000 an acre on the land.

The acquisition costs in urban New Jersey, so close to Manhattan, you cannot find even wetlands for less than $10,000 an acre, and the wetland acquisition costs in the tunnel economics is at $2,000.

Your cost benefit analysis is so wrong that it is pathetic that it was presented to OMB and to you in that format.

I know you are going to hear from others about the flood walls in the lower valley. I'm not going to comment on that. I would, however, like to point out also to you that we're talking also about jobs in a project.

We know that there is controversy presently as to whether this tunnel will come out at Nutley/Clifton or whether it will go to Newark Bay.

Currently, as I understand it, we are discussing a project that comes out at Clifton/Nutley. There is not yet one that goes to Newark Bay.

Mr. ROE. If the gentlelady would yield, that is not true. There are two different alternates in the plan, and this committee is discussing the plan with its alternates, and that is to be decided by the Congress, and that's what the issue is before the Congress right now.

Dr. FILIPPONE. I am very glad to have that clarification, Mr. Roe, because we were never informed of that when we called. Thank you.

The Clifton/Nutley discharge point, this is where the corps has made several mistakes, and this also raises problems in the efficacy of this project which has been presented to Congress.

Under the old alternative, the one at Clifton/Nutley, flood gates would have to be placed at all of the old bridges. These flood gates would have to be raised when the tunnel isn't used, during these 15 days on the average.

These bridges closed would be closed to traffic. We have major industry in the Hudson County area, in Carney, in Harrison, in Newark.

This is a major artery to Manhattan, to Jersey City, to our industrial complexes down in south Jersey. With only three or four bridges available in an area that is already rampant with gridlock, we just couldn't carry on business for those 15 days.

Another point which must be raised is the infrastructure in the communities in the State of New Jersey. Our towns are old. They were built during the 1930s and 1940s, many before the beginning of the century.

The infrastructure was designed for the 25- and 30-year storm. The tunnel will never get some of this water in an efficient manner. It is a boondoggle. It is a sham. It is a white elephant.

Finally, we have taken the opportunity to look at other tunnel plans that are being built in the United States and elsewhere.

We have found that a similar tunnel plan, and you will find a more defined study in your packet of materials, we have looked at the New York Tunnel, we have looked at the one under the English Channel, and many others, and the cost overruns go far over what has been recommended by the Corps of Engineers.

The economics, we believe, are faulty. Now, as far as the buy-out and acquisition program is concerned, I certainly agree with Mr. Roe that it is not the only solution to flooding problems.

In 1984, during the hearings in New Jersey, our comment was help these people now. Do not make them sit there as sitting ducks waiting for another flood to come.

We know that Mr. Roe, at that point in time, agreed with that element, and I hope understood that what we were seeking was assistance for people today, not 20 or 30 years from now.

The second step certainly can look at better environmental components and better management methods than a big pipe.

The Newark Bay alternative was Alternative 7 in the corps project. That Alternative 7 was disregarded early during the study phases and was resurrected only recently.

There is no comprehensive environmental impact statement, no background on exactly what that discharge point will be, comparable to the kind of information we have gotten on the Clifton/Nutley discharge.

In addition to that, we must direct you to the New Jersey State water supply master plan which has indicated that north Jersey will again be in a water supply deficit by the year 2005.

In our opinion, a major conflict occurs between the flood control and water supply. As I mentioned before, over 95 municipalities, 1.2 million people, depend on ground water for their drinking water.

Another two million depend on surface water supplies for drinking water supply from the Upper Passaic River Valley. We are talking about a storm, most recently in 1984, where 6,000 people were evacuated.

We would like to even say let's increase that number to 10,000 people. Spending billions of dollars on a large pipe to divert water from one place to another is wasteful.

We would rather see the money spent on helping these people today. There is a program in place in the State of New Jersey under the Green Acres Program to evacuate people.

Environmentally, in our opinion, this project is poor, the water resources priorities are wrong, and, economically, the tunnel project will waste money because it will not do an efficient job anyway, and it will certainly cost more than $900 million.

We strongly recommend that the project be rejected. Thank you.

Mr. NOWAK. Thank you very much. I take it you're opposed to the project.

Dr. FILIPPONE. Mr. Chairman, I must say we are opposed to it and not lightly, because I don't think that there is anyone in this room attending this meeting today that has participated more diligently at meetings with the Corps of Engineers and with the municipalities than my staff and myself.

I think that we have been a responsible, non-profit watershed association, and we do not take positions lightly.

Mr. NOWAK. The statement the corps provided us had a conclusion, as you well know, of a benefit to cost ratio, and that benefit cost ratio was stated as 1.5 to 1.

Dr. FILIPPONE. That's correct, yes.

Mr. NOWAK. Have you, in your analysis, been able to break that down to any degree? Have you had the opportunity to analyze that?

Dr. **Filippone**. We had hoped to do that by a little later time this year, but I think that we could get something to you by the end of the month.

One of the resolutions we have been trying to wait for, quite frankly, was whether this tunnel was going to be recommended to Clifton/Nutley or at Newark Bay, because the Newark Bay extension, I think they get to just about a 1.1 benefit cost ratio.

I think once we begin to look at it, we will find shortfalls. I know this has been going on especially with regard to land acquisition costs.

Mr. **Nowak**. The land acquisition cost, it's not an art, it's pretty much a science now, and there must be comparables in the real estate and the general locations of these properties.

Dr. **Filippone**. It's very easy to do, because you look at the most recent sale, and you have your comparables. As I indicated, in the Lower Passaic in towns like North Arlington and Lyndhurst, which are pretty much fully developed, I'd love to buy something at $4,500 an acre, but you are going to have to $40,000, $50,000, $60,000 an acre, depending on zoning, and even in residential areas it gets to be very costly.

Mr. **Nowak**. Well, we'll look forward to that information.

Let me turn to Arlan Stangeland at this point in time.

Mr. **Stangeland**. Thank you, Mr. Chairman.

Dr. Filippone, first let me say that you're very fortunate in New Jersey to have somebody representing you here in the Congress like Congressman Bob Roe.

I served with him for many years on this subcommittee when he was Chairman, we worked very, very closely together, and he's a man for whom I have a great deal of respect and admiration for.

In my experience, Bob has been a real problem solver, and he's a National Congressman, he's not a provincial Congressman, and he has concerns for problems throughout the whole United States and has worked hard to solve those problems, for which I am extremely grateful. He's helped me in my district.

Dr. **Filippone**. We've always been proud of him, too.

Mr. **Stangeland**. I hope you'll continue to be proud of him. I don't have any specific questions, I guess, except that I gather that the State of New Jersey is the local sponsor.

Dr. **Filippone**. That's correct.

Mr. **Stangeland**. The New Jersey Assembly passed Resolution 3, which states the tunnel is unacceptable, but does that mean that New Jersey still sponsors the project? Is there a conflict here? Explain that to me.

Dr. **Filippone**. I would say that there is a conflict between some of our legislators in the New Jersey legislature. We have a new governor, Governor Jim Florio, and I am not so sure that Mr. Florio has had time enough in his gubernatorial seat to come up with a response on this particular issue.

He has been faced with some very difficult issues that needed his immediate attention. Not that this is not important; however, he made certain pledges which he is pursuing.

I think that Assembly Resolution 3, which has a companion resolution in the New Jersey Senate, was released from committee at the end of the last session.

It will again be released. There is companion legislation, 2A Res. 3, which calls for the establishment of an acquisition program in the Passaic River Basin with a companion bond issue for $103 million to acquire, relocate and demolish the houses in the flood way, where it is illegal in the State of New Jersey to build houses in this day and age.

That is an appropriate engineering decision that was made by the State many years ago, and I think that most civil engineers and reasonable people agree with that point.

Mr. **Stangeland**. I just have to say that New Jersey has a very severe problem, you in the Passaic area have a very severe problem, and, you know, there's an old saying Nero fiddles while Rome burns, and we can fiddle around here while you still have the problem.

There may be another severe flood, and, you know, there may be a lot of people asking why did we fiddle when we should have been doing something.

Dr. **Filippone**. I've been asking that question, Congressman, for over 20 years. Dealing with the Corps of Engineers, I think they have been fiddling too long.

The Corps of Engineers have been unresponsive to the needs of these people in this basin since they got the Congressional mandate in 1936.

They do not respond to the environmental effort, they do not respond to the Congressional directive. We sat through——

Mr. **Roe**. Will the gentleman yield?

Mr. **Stangeland**. I just have to say, you know, that's a hard rap on the corps.

Mr. **Roe**. Will the gentleman yield? Now, wait a minute. You know better than that.

Dr. **Filippone**. Let's not get into the——

Mr. **Roe**. I have the floor, if the gentleman would yield, and I've respected you, and I expect you to respect me.

Dr. **Filippone**. I certainly do.

Mr. **Roe**. Let me tell you something. You haven't said one good thing about anything or anybody. I just wonder where this marvelous expertise all of a sudden falls on your shoulders so you have the solutions to all the problems.

Now, first of all, number one, when I was the Commissioner of the Department of Conservation and Economic Development, my department wrote the flood plain law, literally. That's number one, okay?

Number two, we have presented four different plans in the last 30 years to the State of New Jersey that were approved by Governor Hughes, was approved by Governor Cahill, was approved by Governor Burn, and now we have this one which is in consideration as to whether or not Governor Florio will approve the plan.

That was plan C, that was plan 2B, that was plan C2, every single one of those plans that were developed, the people didn't want the plans.

Ten years ago, we came down here, and I remember it well, and we said, well, let's try different approaches to see if we can try to solve something, and we would take certain basic steps.

We would take a look, a lot of people don't agree, including the corps, we'll take a look at Beatty's Dam, we ought to put a gate in there.

We studied that, and that's a major project now. That's coming along. We wrote in the Molly Hansbrook, we wrote in half a dozen projects, including the project you recommended along the Lower Passaic River from the environmental point of view so we could get at least something going.

Now, the Corps of Engineers, and the people ought to know this, and the State of New Jersey is not going to provide one Soo marquis to these people unless we get to a point where we get some kind of an agreement to make it a formal program.

Now, when we talk about the corps frittering for 10 years, we the people of New Jersey, in due respect to the other States involved here, stopped every single proposal that's been presented in the State of New Jersey in the last 30 years.

They've been stopped in the State of New Jersey. I assure you the other 49 States and the Territories can well use $900 million, you heard the testimony from other people this morning.

It's interesting to me, when we talk about the cost of the land, and we say, well, it's listed at $4,500 an acre, and that's silly, and so forth, and I agree with you, that is silly, I know all the land isn't listed at $4,500, but all of that notwithstanding, if we come back and we're going to buy out the land, then doesn't that exacerbate those costs, too?

I would think it does. So I would hope that we would give a little bit of credit, a little bit of something that other people have been doing for 25 years in trying to resolve the problem.

If it is the will of the people of the State of New Jersey not to go with this program, there is nothing else before this Congress whatsoever, we have exhausted every direction to go.

So if it's the will of the State of New Jersey that they don't want to do any flood resources or water resources projects in the Passaic River Basin, so shall it be, and we'll just have to handle it ourselves.

I thank the gentleman for yielding the time.

Mr. STANGELAND. I'm pleased to yield to the distinguished gentleman from New Jersey any time.

I was just going to say, Dr. Filippone, that floods are environmentally damaging, they're economically damaging, there's a whole host of damages, and, you know, a lot of times we have to trade off one damage for another, and hopefully the damage we accept is less than the damage that we cure and solve.

That's kind of the problem that we have, and I think Mr. Roe states it very succinctly. I know in my district, very similarly, I have a city that floods on a regular basis with a river that runs north in a cold country where the ice thaws gradually slower as you go north, so the water piles up, and the corps came in and gave them a plan, and the city says no way, we won't accept that plan, and they still have no plan, and so far as I'm concerned, it's up to them to work it out.

I don't want to turn my back on the problems you have because of the dense population, because of some of the unique situations you have, you know, we need to solve a problem.

We're going to struggle with this, and I thank you for being here. I would yield back, Mr. Chairman.

Mr. **Nowak**. Thank you very much, Dr. Filippone. We'll be looking forward to any further submissions that you'd like to make.

Dr. **Filippone**. I certainly will, and I would like to thank you for the opportunity, and, Congressman Roe, I would like to correct you on one statement that you made. I still think you're one heck of a good Congressman.

Mr. **Roe**. I agree.

Dr. **Filippone**. I just wish you would say one nice thing about the environmentalists.

[Dr. Filippone's prepared statement follows:]

PASSAIC RIVER COALITION

246 MADISONVILLE ROAD, BASKING RIDGE, NJ 07920 (201) 766-7550

Statement: Water Resources Subcommittee, House Public Works Committee, re: Passaic River Dual-Inlet Flood Control Tunnel Plan, March 14, 1990

Presented by: Ella F. Filippone, Ph.D., Executive Administrator

Mr. Chairman, the Passaic River Coalition is a watershed association which has been working on water resources issues for the Passaic River Basin since 1969. Our membership consists of the citizens of the 118 municipalities of this densely populated, urbanized region. As such, we have continuously been involved with deliberations on all aspects of water resources management.

Mr. Chairman, in 1976 the Passaic River Coalition participated in the hearings which have led to the plan we are reviewing today. We have furthermore participated in all aspects of the planning process with the New York District of the Army Corps of Engineers. Never during these deliberations was the Corps responsive to the environmental concerns presented to them. Their comments have no scientific basis and often show bias and contempt for the public's concern.

The Passaic River Coalition, after considerable evaluation, concludes that the tunnel plan would not serve the public interest nor does it respond to the mission which the Congress assigned to the Corps for the development of a water resources management project in the Passaic River Basin.

First, the entire area known as the Highlands and the Central Basin are EPA designated "sole source" aquifers; 95 municipalities depend on groundwater for their drinking water supplies, which equates to over one million people. References to impact on groundwater in the environmental impact statement hardly exist, and when they do it relates to groundwater inflow into the tunnel not on the impact the drawdown of recharge waters will have on the aquifer systems.

Second, over 900 acres of wetlands will be destroyed or degraded as a result of this project. Nowhere in New Jersey is there land which can replace what is being destroyed. Furthermore, the Corps has totally disregarded the New Jersey's Wetlands Act, which now protects such wetlands from destruction. In order to construct holding ponds, this project will totally destroy the confluence of the Pequannock River with the Pompton, a river which could qualify for wild and scenic classification, having some of the highest quality waters in the state.

Third, the Corps cost estimates, especially with regard to land acquisition, are considerably off the mark. In one case, the Corps estimates land acquisition costs at $4,500/acre when the municipality just paid $54,000/acre; this is the rule rather than the exception.

Fourth, normally when the Corps recommends floodwalls and levies, it is in an area which suffers from major flooding; however, the tunnel will dump massive amounts of polluted floodwaters into the Lower Passaic, which does not have a flooding problem. Yet because of the transference of the problem from the Greater Wayne area to Nutley/Clifton, high floodwalls and massive levies are planned which will totally alter the relationship of the urban communities to the Passaic River. Parks will be destroyed, and river access will be severely limited.

Fifth, the Corps has never evaluated the economic impact on business and industry when the tunnel is in use. Because flood gates must be raised on the older bridges, these bridges will not be in use when the tunnel is functioning. Major gridlock will occur in an area which already suffers from traffic congestion.

Sixth, major efforts are being expended to begin to improve water quality in the estuarine areas of Newark Bay, mainly as a result of the effort of our Congressman Robert A. Roe. The bacteriological interaction of the waters in the tunnel plus other pollutants will make the first flush a major point source of pollution wherever it discharges, and would, therefore, be in violation of the Clean Water Act.

Finally, the cost of the tunnel is vastly underestimated. A similar project undertaken by the City of New York beginning in the 1970's has already cost $1.2 billion; the tunnel under the English Channel is 40 percent complete and 50 percent over budget. Without any doubt, the cost projections are low. New Jersey, furthermore, does not have the matching funds for this project, as indicated by New Jersey Assembly Resolution 3, which clearly states that the tunnel is unacceptable.

Mr. Chairman, the Passaic River Coalition is not alone in its opposition to this ill-conceived plan. We are submitting to you a collection of letters and resolutions from Members of the New Jersey Legislature, counties, and municipalities, who do not want this project authorized.

We also are submitting to you in summary form key elements of the points we have just raised, in addition to the summary of our alternative to the tunnel plan. As a first step, we have recommended an acquisition program of the houses in the floodway, which would call for no federal involvement. Legislation is pending in the New Jersey Assembly to establish such a program and to fund it under a special bond issue.

We have proposed a comprehensive management plan; however, the New York District Corps will not consider such an approach; they continually comment that Congress will not allow them to undertake certain elements of our comprehensive management plan. When we speak of an acquisition program, we do not focus on this approach for the entire Passaic River Basin, which for some unknown reason, the Corps always points to. We have suggested that a variety of methods be used, which would include certain structural measures; however, these would be utilized after the more environmentally productive approaches have been implemented.

Mr. Chairman, the inequities of the tunnel plan are more visible in the lower valley; therefore, suggestions have been forthcoming from Members of Congress and others to move the outfall to Newark Bay. This alternative was number 7 of those studied by the Corps, and disqualified in the early stages of study. While the floodwalls and levies would be eliminated for some towns under this scenario, the negative impact on the Highlands and Central Passaic would remain.

According to the New Jersey State Water Supply Master Plan, northern New Jersey will be in a water supply deficit by the year 2005. To authorize any project now which would drain water supply from this still growing area is incomprehensible. Some of the same officials who are supporting the tunnel plan represent areas which are currently in a water supply deficit area. It is possible to move people out of a flood path, but it is impossible to create new reservoirs for water supply in a state as densely populated as the State of New Jersey. A major conflict exists within this project between water supply and flood control. Ninety-five municipalities, over 1.2 million people, are dependent on ground water for their drinking water supplies; in 1984, the most recent major storm, 6,000 people were evacuated from their homes. Even if we increase that number to 10,000 people, the tunnel project proposes to spend billions of dollars to aid less than 1 percent of people in this water resource management area.

Environmentally the project rates poor; water resources priorities are wrong; and economically the tunnel project will waste money because it will not do the job anyway; it will certainly cost a great deal more than $900 million. This project should not be authorized now or in the future.

[The following items relating to the Sault Ste. Marie Replacement Lock Project follow:]

PASSAIC RIVER COALITION
246 MADISONVILLE ROAD, BASKING RIDGE, NJ 07920 (201) 766-7550

PASSAIC RIVER COALITION TESTIMONY
BEFORE THE
HOUSE PUBLIC WORKS COMMITTEE
MARCH 14, 1990

LIST OF EXHIBITS

I. Letter to President Bush from New Jersey's Environmental Community.
II. Passaic River Coalition's Buy-Out/Flood Management Plan.
III. Effect of Buy-Out on Local Ratables.
IV. Comparison of New York City's Water Tunnel & the Flood Tunnel.
V. Impact of Tunnel on Regional Transportation.
VI. Impact of Local Infrastructure on Tunnel Plan.
VII. Cost/Benefit Analysis of Tunnel Plan.
VIII. Letters & Resolutions Opposing Tunnel Plan.

    a. New Jersey State Legislature.
    b. Hudson, Bergen & Essex Counties.
    c. Individual members of the NJ Legislature.
    d. Passaic River Basin municipalities.
    e. Other organizations.

EXHIBIT I

PASSAIC RIVER COALITION

246 MADISONVILLE ROAD, BASKING RIDGE, NJ 07920 (201) 766-7550

April 25, 1989

Hon. George Bush
President of the United States
The White House
1600 Pennsylvania Avenue
Washington, D.C. 20500

Dear President Bush,

Your pledge to the American people to be the environment president has certainly provided each of us in the environmental community with a renewed optimism for the future. As you know, however, a number of obstacles remain at the federal, state and local levels on route to that elusive goal of a cleaner and healthier environment.

The Passaic River Basin, located in Northern New Jersey, has been identified as the most flood-prone river valley in the Eastern United States. Since colonial times, the desire to control flooding has dominated life in the Basin. In 1984, the Corps of Engineers proposed a Dual Inlet Tunnel Diversion Plan which would involve the construction of a massive underground tunnel to discharge flood waters to another part of the Basin. Currently, the Corps is before the House Appropriations Committee seeking $3.9 million, as part of a $27 million package, for project design and engineering.

This tunnel plan will result in profound damages to our environment and cost billions of dollars. The negative impact on water quality, water supply and open space will be pervasive and long-lasting. In addition, the Corps proposes to destroy almost 1,000 acres of freshwater wetlands during project construction, a direct contradiction of your policy of wetlands preservation. Beyond these environmental concerns are questions regarding the economics of the project. The Corps has an estimated construction time frame of 7.5 years at a cost of $879 million, however, a strikingly similar project which has just been completed in New York City cost over $1 billion and took 18 years to complete. Now there is discussion of extending the tunnel at an additional cost of $300 million, with the federal government paying for 75% of both the original and extension costs.

The perennial victims of flooding in the Passaic River Basin, and the American taxpayers, deserve better than such an extravagant, environmentally unsound, and capital intensive project. We support a plan to buy-out and relocate flood victims. Such a buy-out will cost only one-quarter of the Corps plan and will actually result in benefits to the environment. Most important, a buy-out can be completed in within five years with minimal maintenance into the future.

We respectfully request that you intervene to stop this wasteful expenditure of taxpayers money for this ill-conceived project and instead use the $27 million for a more deserving cause.

Thank you for your consideration.

Sincerely,
Ella F. Filippone
Ella F. Filippone, Ph.D.
Executive Administrator
PASSAIC RIVER COALITION

AMERICAN LITTORAL SOCIETY
D.W. BENNETT

BERGEN COUNTY AUDUBON SOCIETY
DAVID HALL

GREATSWAMP WATERSHED ASSOCIATION
MADELINE PITNEY

NEW JERSEY AUDUBON SOCIETY
RICHARD KANE

SIERRA CLUB, NEW JERSEY CHAPTER

SIERRA CLUB, NEW JERSEY CHAPTER,
NORTH JERSEY GROUP
JAMES CHISTENSON

PASSAIC RIVER
RESTORATION PROJECT
ROBERT MYERS

UPPER RARITAN
WATERSHED ASSOCIATION
DAVE PEIFFER

ASSOCIATION OF NEW JERSEY
ENVIRONMENTAL COMMISSIONS
SALLY DUDLEY

DELAWARE RARITAN GREENWAY
MAUDE BACKEF

LEAGUE TO SAVE OPEN SPACE
LORRAINE CARUSO

NEW JERSEY ENVIRONMENTAL
FEDERATION
KEN BROWN

SIERRA CLUB, NEW JERSEY CHAPTER,
LOANTAKA GROUP
PAUL PAYTAS

STONY BROOK-MILLSTONE
WATERSHED ASSOCIATION
PAT BEGEL

PASSAIC VALLEY GROUND
WATER PROTECTION COMMITTEE
HERBERT J. CANNON, P.E.

UPPER ROCKAWAY
WATERSHED ASSOCIATION
CONSTANCE STROH

ALL OF THE ABOVE ORGANIZATIONS ARE CONFIRMED SIGNATORIES

EXHIBIT II

PASSAIC RIVER COALITION

346 MADISONVILLE ROAD, BASKING RIDGE, NJ 07920 (201) 766-7550

THE PASSAIC RIVER BASIN
BUY-OUT/FLOOD MANAGEMENT PLAN

Buy-Out of Floodway Structures

The Floodway

The State of New Jersey, as prescribed by the rules and regulations of the Flood Hazard Area Control Act (N.J.A.C. 7:13-1.1 et. seq.), defines the floodway as "the channel of a natural stream and portions of the Flood Hazard Area adjoining the channel which are reasonably required to carry the discharge of flood water or flood flow of any natural stream". More simply stated, the floodway of a river or stream is the area which is first, and most severely, impacted by flood waters. As such, the floodway is the highest risk area of the entire floodplain.

Because of this high risk element, the State of New Jersey now prohibits the placement of structures in the floodway. Many of these homes served as summer residences in the early 1900's. Since then, virtually all of these structures have been converted to year-round residences. With this full-time occupancy has come the persistent risk of seasonal flooding. In the flood of 1984, for example, those who resided in the floodway suffered the most damages. The alleviation of these chronic damages must be a high priority. Therefore, any buy-out program which involves flood-prone structures must first focus on residential structures in the floodway.

The Passaic River Basin

The U.S. Army Corps of Engineers has identified the Passaic River Basin as the second most flood-prone river valley in the nation, and the most flood-prone on the east coast. This is mostly attributable to the geography of the Basin, which includes seven major river systems- the Passaic, Pompton, Pequannock, Wanaque, Ramapo, Rockaway, and Whippany. If there was ever a need to permanently evacuate people as a protection against natural flooding cycles, the Passaic River Basin would most certainly be first to qualify.

Before any conclusions or recommendations can be made regarding the buy-out of floodway structures, base line data on such structures must be gathered. In the absence of such information, the Passaic River Coalition has identified residential structures in the floodway within the Basin's most consistently flooded municipalities:

- Wayne Township
- Little Falls Township
- Fairfield Township
- Pequannock Township
- Pompton Lakes Borough
- Lincoln Park Borough

Using U.S. Army Corps of Engineers maps and information provided by the State of New Jersey, the floodway delineation within each of these municipalities was mapped and the structures with the floodway were identified and field verified. In total, there are 774 currently occupied residential structures in the floodway of these communities (see accompanying maps). As a matter of fact, with the exception of one structure in Lincoln Park, every building in the floodway of these communities was residential. The breakdown of these structures is as follows:

1. Wayne-	378
2. Lincoln Park-	197
3. Little Falls-	77
4. Fairfield-	46
5. Pompton Lakes-	43
6. Pequannock-	33

The Buy-Out

When considering a buy-out of these floodway structures, several factors must be addressed. The first, and most obvious, is the PURCHASE COST for each structure. The purchase price for each residence was calculated by averaging the purchase prices accepted under the State's voluntary buy-out program (24 structures) and the Route 24 mitigation buy-out completed by Morris County (5 structures). Virtually all of these were 1987 prices, so an increase of 4.9% (National Association of Realtors, Northeast New Jersey) was added to this cost to achieve a 1988 final purchase price of $93,570.

The second factor is the cost of RELOCATION. The term relocation is defined to include the cost of relocating to another area and the cost to move to that area. Under New Jersey's Green Acres program, moving costs are provided to qualified residents as follows: $500 cash for those who move themselves, or, the lowest of three estimates from moving companies, which is estimated to range from $1,500 to a maximum of $2,000. In addition, relocation costs are provided as follows: If a homeowner purchases another home, he/she is eligible for an amount not to exceed $15,000; if the resident is a tenant, he/she may qualify for an amount not to exceed $4,000 for a four year period to cover the difference in rent for a comparable unit.

Using Lincoln Park as the typical case, approximately 75% of residences are owner occupied while 25% are rental units. Based on the above figures, a renter may qualify for anywhere between $4,500 to $6,000, while a homeowner may qualify for $15,500 to $17,000. Applying the owner/tenant ratio to the "lower" ($4,500 and $15,500) and "higher" ($6,000 and $17,000) figures for owners and renters, an average figure of $12,750 and $14,250 is calculated for the "lower" and "higher" funding amounts, respectively. These were then averaged for a final relocation amount of $13,500 per structure. It should be noted that this is a high estimate because although the "higher" figures are indeed the maximum qualifying amounts, the "lower" figures are not necessarily the minimum qualifying amounts.

The final factor is the cost of removing the structure once it is purchased. This is known as the DEMOLITION COST. The cost of demolition is defined as the amount of funding needed to raze a structure and to remove the resultant debris. The Federal Emergency Management Agency used a demolition estimate of $4,100 per structure in 1985, while the Township of Pequannock, under the State's buy-out program, used a demolition figure of $6,800 per structure for 1987-88. Based upon this three year increase, and taking into consideration the rising cost of solid waste disposal in New Jersey, we have estimated a demolition figure of $10,000 per structure.

Table 1 summarizes the final cost of buying-out these 774 floodway structures.

TABLE 1

THE PASSAIC RIVER BASIN
BUY-OUT/FLOOD MANAGEMENT PLAN
RESIDENTIAL STRUCTURES IN THE FLOODWAY

MUNICIPALITY	STRUCTURES*	PURCHASE COST	DEMOLITION COST	RELOCATION COST	TOTAL COST
WAYNE TOWNSHIP	378	$35,369,460	$3,780,000	$5,103,000	$44,252,460
LINCOLN PARK BOROUGH	197	$18,433,290	$1,970,000	$2,659,500	$23,062,790
LITTLE FALLS TOWNSHIP	77	$7,204,890	$770,000	$1,039,500	$9,014,390
FAIRFIELD TOWNSHIP	46	$4,304,220	$460,000	$621,000	$5,385,220
POMPTON LAKES BOROUGH	43	$4,023,510	$430,000	$580,500	$5,034,010
PEQUANNOCK TOWNSHIP	33	$3,007,810	$330,000	$445,500	$3,863,310

FINAL COST- $90,612,180

*- BASED ON PRC FIELD VERIFICATION.

After this was completed, a random survey of "asking prices" for residences for sale in the floodway was conducted by the Passaic River Coalition. This survey was designed to help verify the purchase cost of these structures. Sampling three residences for sale in each of the six target communities (some had more than three, others had none), an approximate "asking price" of $110,000 was derived. While we realize that the difference between this price and the amount the home seller actually receives may be quite different, we re-calculated the final buy-out cost figures using the $110,000 purchase price so as to develop a range of costs. These revised costs appear in Table 2.

In the final analysis, the actual cost of this floodway buy-out will probably fall between the $90 million estimated in Table 1 and the $103 million estimated in Table 2.

TABLE 2

THE PASSAIC RIVER BASIN
BUY-OUT/FLOOD MANAGEMENT PLAN
RESIDENTIAL STRUCTURES IN THE FLOODWAY

Municipality	Structures*	Purchase Cost	Demolition Cost	Relocation Cost	Total Cost
Wayne Township	378	$41,580,000	$3,780,000	$5,103,000	$50,463,000
Lincoln Park Borough	197	$21,670,000	$1,970,000	$2,659,500	$26,299,500
Little Falls Township	77	$8,470,000	$770,000	$1,039,500	$10,279,500
Fairfield Township	46	$5,060,000	$460,000	$621,000	$6,141,000
Pompton Lakes Borough	43	$4,730,000	$430,000	$580,500	$5,740,500
Pequannock Township	33	$3,630,000	$330,000	$445,500	$4,405,500

FINAL COST- $103,329,000

*- Based on PRC field verification.

Beyond the Floodway

Beyond the floodway lies the 10-year and 50-year floodplains. Unlike the floodway, the 10- and 50-year floodplains cover more land area and thus have the potential to cause more flood related damages. However, flooding within these floodplains is less frequent than for the floodway. In order to provide for a more complete protection against natural flooding cycles, a buy-out/floodproofing of residential structures would have to occur within the 10- and 50-year floodplains.

In the absence of a study on such a buy-out, we have gathered information from the U.S. Army Corps of Engineers Final Environmental Impact Statement and Plan Formulation documents for the proposed Dual Inlet Tunnel Diversion Plan and have estimated the cost for a residential buy-out strategy for the 10- and 50-year floodplains. Incorporated in these estimates are the figures used for purchase costs, demolition costs, and relocation costs in Table 1. The only additional cost used for this analysis was the cost of floodproofing.

FLOODPROOFING is designed for use by the Corps of Engineers when flood depths extend from below the basement floor to the main floor elevation. In their plan, the Corps also recommends raising or the placing of a wall around structures for flooding from the main floor to nine feet above the main floor. We have eliminated raising and walls as an option. Under our strategy for the 10- and 50-year floodplain buy-outs, the Corps guidelines on floodproofing will be retained, but structures to be raised and walled under the Corps analysis will simply be evacuated. Floodproofing is defined by the Corps as using a sump pump, check valve, and watertight chamber. We have estimated floodproofing to cost approximately $2,000 ($500 for pump and valve, $1,500 for sealing basement).

Tables 3 and 4 summarize the final costs of a buy-out of residential structures in the 10- and 50-year floodplains. It should be noted that each of these buy-out strategies are designed to provide complete protection against the hazards associated with flooding.

TABLE 3

PERMANENT EVACUATION AND FLOODPROOFING

EVENT	SUBBASIN	STRUCTURES* FLOODPROOF	STRUCTURES* EVACUATE	COST ($1,000's) FLOODPROOF	COST ($1,000's) EVACUATION**		TOTAL COST
10 YEAR	CENTRAL BASIN	1,690	138	$3,380	$16,156		$ 19,536,000
	POMPTON	2,034	582	4,068	68,135		72,203,000
	WANAQUE	102	1	204	118		322,000
	PEQUANNOCK	209	2	418	234		652,000
	RAMAPO	526	74	1,052	8,664		9,716,000
						TOTAL-	$102,429,000
50 YEAR	CENTRAL BASIN	2,339	511	$4,678	$ 59,823		$ 64,501,000
	POMPTON	1,860	1,563	3,720	182,981		186,701,000
	WANAQUE	107	34	214	3,980		4,194,000
	PEQUANNOCK	247	21	494	2,459		2,943,000
	RAMAPO	564	294	1,128	34,418		35,546,000
						TOTAL-	$293,885,000

*- BASED ON DATA PRESENTED IN ARMY CORPS OF ENGINEERS PLAN FORMULATION DOCUMENT, PP. 155-166.

**-SEE TABLE 4 FOR EVACUATION COST BREAKDOWN.

TABLE 4

EVACUATION COST BREAKDOWN

		COSTS ($1,000's)		
EVENT	SUBBASIN	PURCHASE	DEMOLITION	RELOCATION
10 YEAR	CENTRAL BASIN	$12,913	$1,380	$1,863
	POMPTON	54,458	5,820	7,857
	WANAQUE	94	10	14
	PEQUANNOCK	187	20	27
	RAMAPO	6,924	740	1,000
50 YEAR	CENTRAL BASIN	$ 47,814	$ 5,110	$ 6,899
	POMPTON	146,250	15,630	21,101
	WANAQUE	3,181	340	459
	PEQUANNOCK	1,965	210	284
	RAMAPO	27,509	2,940	3,969

Summary

Although the figures we have presented for the 10- and 50-year floodplain buy-outs are general estimates based on Corps of Engineers data, they can be compared to the cost of a floodway buy-out. Because each of these estimates are inclusive, the cost of extending the buy-out from the FLOODWAY to the 10-YEAR FLOODPLAIN can be estimated to be approximately $12 million. The cost of extending the buy-out from the 10-YEAR FLOODPLAIN to the 50-YEAR FLOODPLAIN can be estimated to be approximately $190 million.

EXHIBIT III

PASSAIC RIVER COALITION

246 MADISONVILLE ROAD, BASKING RIDGE, NJ 07920 (201) 766-7550

THE EFFECT OF A BUY-OUT
ON LOCAL RATABLES

When a buy-out of residential structures is mentioned as a solution to the hazards of flooding, the question of the loss of ratables to a municipality usually follows. The concern is, of course, a valid one- will a given community lose revenues if housing units are permanently removed? In response to this question, we have researched and prepared a Cost-Benefit Fact Sheet on the effect of a buy-out on municipal ratables (see attached). Using Lincoln Park as an example, we have determined that it costs the Borough more in municipal services to floodplain homes than they get back in taxes. In order to make up this difference, those residing outside of the floodplain are left to help pay for the municipal services used by these floodplain residents. We estimate, however, that permanently removing these floodplain homes would result in an overall tax savings to Lincoln Park. The cost/benefit ratio of such a buy-out is 1.3.

It should be noted that this cost/benefit figure does not include emergency relief expenses incurred by the State, federal or municipal governments for major flood events. Inclusion of this figure would increase this cost/benefit ratio for a residential buy-out.

PASSAIC RIVER COALITION
246 MADISONVILLE ROAD, BASKING RIDGE, NJ 07920 (201) 766-7550

COST-BENEFIT FACT SHEET

LINCOLN PARK

A. 1988 Tax Rates

The municipal tax rate for Lincoln Park for Fiscal Year 1988 includes a local school tax, a county tax, and a local purpose tax. The Borough has no jurisdiction over the county and school budgets, so only the local purpose tax is used for this analysis. All rates are per $100 of assessed value.

Local School Tax	$2.01
County Tax	.50
Local Purpose Tax	1.09
Total-	$3.60

B. Number of Households

In order to determine the amount of local tax revenues received and spent for each household in Lincoln Park, the total number of households must be calculated.

Households

Year	1970	1980	1984	1988
Units	2494	2610	2901	3560(1)
% Change		+5%	+11%	+22%

C. Cost of Municipally Provided Services

The following are a list of services which the municipality would no longer have to provide once a residence is bought-out. The total is for the entire Borough as provided for in the 1988 budget. The total is then converted to a "per household" figure based on 3560 households.

* Emergency Management Systems	$ 17,107
* Solid Waste	925,884
* Police	831,000
* Fire	59,550
* First Aid Organization Contribution	12,500
Total-	$1,846,041 or $519 per Household

D. Revenues Received

Applying the number of households to the tax rate, cost of housing, and tax assessment level as a percent of housing value, total revenues per household can be estimated.

Local Purpose Tax = $1.09
Households = 3560
Cost of Housing = $66,355(2)
Assessment as Percent of Value = 49.48%

* Local Tax:	$374 per household
* Balance of Sewer Service Cost(3):	$ 26 per household
Total-	$400 per household

E. Benefit-Cost Comparison

* Gain from services eliminated:	$519 per household
* Loss from revenues eliminated:	$400 per household

BENEFIT-COST RATIO OF BUY-OUT: 1.3

---

(1) Estimate based on approximate number of new housing units approved and constructed since 1984. Source: Morris County Planning Board.

(2) Average cost of homes purchased in Lincoln Park under the state's Buy-out Program.

(3) This figure is the balance of revenues received from sewer rents ($844,213) less cost of sewer service ($751,559) divided by 3560 households. This was the only service for which revenues were received from local residents.

EXHIBIT IV

PASSAIC RIVER COALITION

246 MADISONVILLE ROAD, BASKING RIDGE, NJ 07920 (201) 766-7550

FINANCIAL COMPARISON

THE NEW YORK CITY WATER TUNNEL
AND THE
CORPS OF ENGINEERS FLOOD CONTROL TUNNEL

As with any major public works project, the estimation of costs depends on a thorough comparison of similar projects, preferably within the same region. After all, nothing approximates the future better than actual experiences.

The New York City Water Supply Tunnel No. 3 is strikingly similar to the New York District, Army Corps of Engineer's Dual Inlet Tunnel Diversion Plan for the Passaic River Basin. The Corps chose not to utilize New York City's actual construction expenditures when estimating the costs of their tunnel. No justification for this decision has been presented.

In the absence of such a comparison, the Passaic River Coalition has prepared the attached Comparative Analysis of the two projects (see attached). Considering that the final completion cost of New York's tunnel was $1.0-1.1 billion, the Corps tunnel will cost a great deal more since New York City began their project with 1970 dollars. Initially, the Corps projected a twenty year construction time line, which is similar to the New York City construction period. Thus, any cost estimate must factor in inflation and interest rates into the next two decades. Applying a comparable cost estimate, the tunnel with a discharge at Nutley will cost at least $1.5 billion; if the tunnel is extended to Newark Bay, an additional $500 million must be added, bringing the total to $2 billion, on a conservative basis. All of these figures are based on 1989 dollars.

Additional diseconomies exist for this project, such as land acquisitions, which will result in an even higher final cost for the Corps tunnel plan.

PASSAIC RIVER COALITION

246 MADISONVILLE ROAD, BASKING RIDGE, NJ 07920 (201) 766-7550

COMPARATIVE ANALYSIS

THE ARMY CORPS FLOOD CONTROL TUNNEL PLAN
AND
NEW YORK CITY'S WATER TUNNEL #3

ACE TUNNEL		NYC TUNNEL
13.5 MILES (1) 2.2 MILES (2)	LENGTH	13.5 MILES (3)
39 FEET (1) 22 FEET (2)	DIAMETER	20-24 FEET
125-450 FEET	DEPTH	600 FEET (4)
1990 (5)	APPROXIMATE START-UP DATE	1970-71
1997-98 (6)	ESTIMATED COMPLETION DATE	1989
$841.2 MILLION	ESTIMATED COST	$1.0-1.1 BILLION (7)
3-5 LIVES (8)	CASUALTIES	22 LIVES (9)

* * * *

NOTES-

1. MAIN TUNNEL.
2. SPUR TUNNEL.
3. FIGURES FOR NEW YORK CITY TUNNEL ARE FOR STAGE 1 (*).
4. AVERAGE DEPTH.
5. ASSUMING FUNDING AND APPROVALS ARE GREATLY ACCELERATED.
6. ARMY CORPS ESTIMATE OF 90 MONTHS.
7. ESTIMATED COST FOR RECENTLY COMPLETED STAGE 1.
8. LIVES LOST IN FLOOD EVENTS IN THE PASSAIC RIVER BASIN SINCE 1900.
9. LIVES LOST THUS FAR IN CONSTRUCTING TUNNEL.

*- STAGE 2 OF WATER TUNNEL WILL BE ABOUT 10 MILES IN LENGTH AND HAS AN APPROXIMATE COMPLETION DATE OF 1998-2000 AT AN ESTIMATED COST OF $1.2 BILLION TO $1.5 BILLION.

EXHIBIT V

PASSAIC RIVER COALITION

246 MADISONVILLE ROAD, BASKING RIDGE, NJ 07920 (201) 766-7550

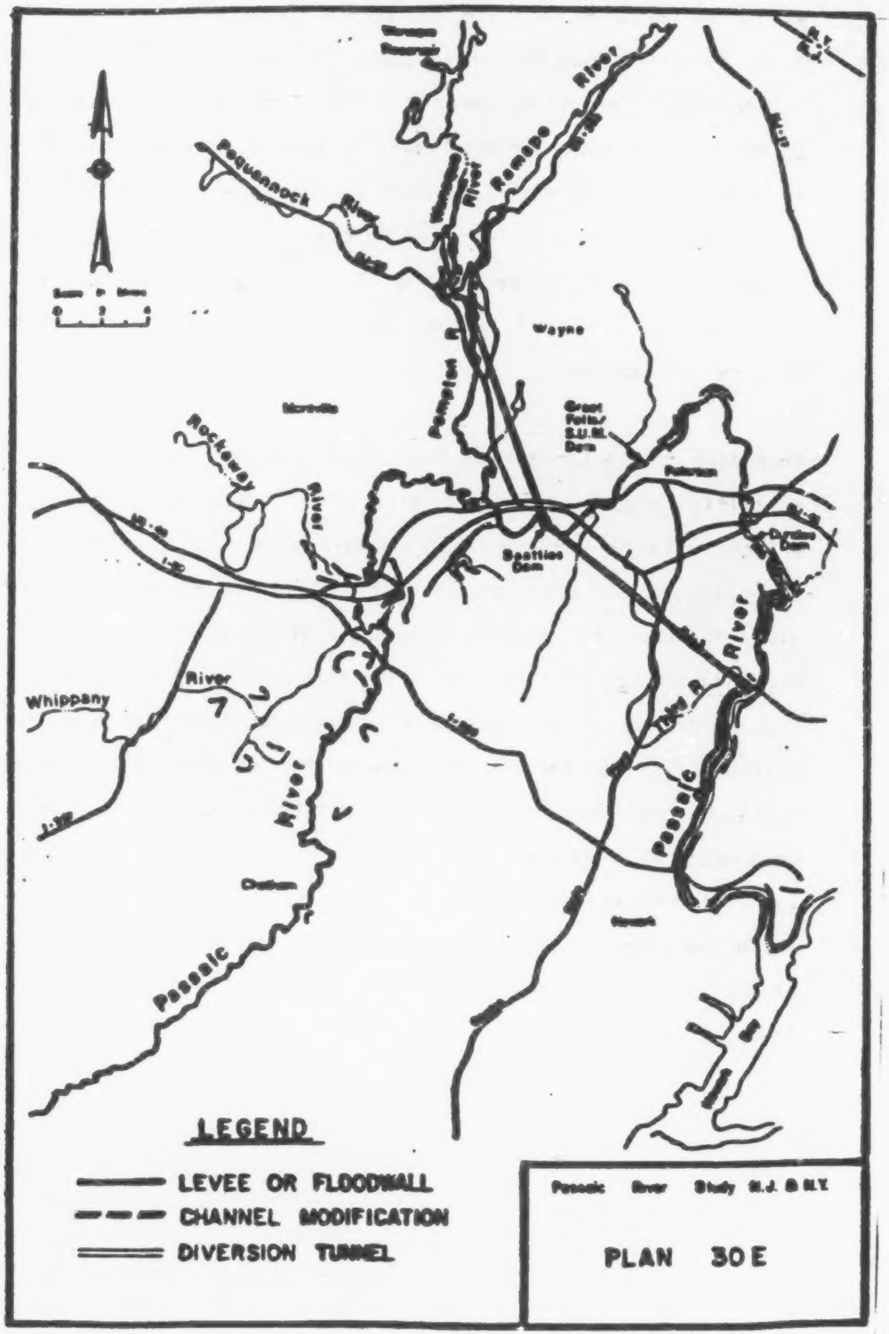
THE PROPOSED ARMY CORPS OF ENGINEERS DUAL INLET TUNNEL DIVERSION PLAN

TRANSPORTATION COMPONENT

A significant portion of the surface works required by the Army Corps of Engineers (Corps) for the operation of the flood control tunnel will occur in the Lower Passaic River Valley (specifically from the City of Passaic/Wallington to Newark/Harrison) (see Figure 1). These works include floodwalls, berms and some channel cutting. In order to accommodate these elements, the Corps has proposed placing gated structures along a number of bridges in the Lower Passaic Valley instead of raising the bridges (a more expensive procedure). These structures will be used to close-off the bridges at times of high water flow, whether that flow results from a tidal surge, natural flooding in the Lower Valley, tunnel induced flooding, or a combination of such incidents. At present the channel of the Passaic River does not exhibit a major problem from tidal surges or natural flooding. The addition of flows from the tunnel will raise the water level.

Flood gates will be constructed to allow floodwaters to move efficiently downstream with floodwalls, berms, or levees on the lands and gates on the bridges to form a solid wall.

FIGURE 1


N.Y.
N.J.
Pequannock River
Wanaque River
Ramapo River
Pompton R.
Wayne
Great Falls/ S.U.M. Dam
Paterson
Beatties Dam
Dundee Dam
Rockaway River
Whippany River
Passaic River
Chatham
Newark
Passaic
I-80
I-287
LEGEND
LEVEE OR FLOODWALL
CHANNEL MODIFICATION
DIVERSION TUNNEL
Passaic River Study N.J. & N.Y.
PLAN 30E

The tunnel will begin operating upon a one-year storm incident. While the Corps will state that such a storm occurs only once a year, Table 1 shows that frequently two one-year storms occur. In addition note must be taken that when a ten-year storm occurs, as happened in 1984, bridges could be closed anywhere from five to seven days while the floodwaters recede. Once the tunnel is in operation and it is determined to close the flood gates, the bridges will no longer be useable. The closing of these bridges will have a profound impact upon the area's transportation network and economy.

According to the Corps Plan Formulation Document, which provides an initial analysis of the details of the tunnel plan, several bridges will have these gated structures. Within this document, several maps and accompanying text outline the affected bridges along the Lower Passaic. These maps are of small scale, and often a single bridge will be identified differently on the same map (i.e., a bridge in Harrison is referred to as the Harrison Avenue Bridge and the Bridge Street Bridge on two different elements of the same map). Because of the Passaic River Coalition's (PRC) knowledge of the Lower Valley, the effected bridges have been identified to the best of our ability. Table 2 lists the bridges which are proposed to have a gated structure and indicates which side of the river bank (right [west bank] or left [east bank]) these structures will be placed.

TABLE 1

Frequency of Storm Events

Water Year	Duration	Peak Discharge Frequency (years) Near Chatham	 At Little Falls
1975-76	10/01	1.3	--
	01/29	1	--
1976-77	03/23-03/26	1.7	1.04
1977-78	11/08-11/11	1.1	1.05
	03/27-04/01	2.5	1.2
1978-79	01/23-01/29	7	1.2
	02/26-03/02	2.5	--
	03/07-03/08	1	--
	05/25-05/27	1.4	1.01
1979-80	03/22-03/26	2	1.05
	04/10-04/13	--	1.1
1980-81	--	--	--
1981-82	01/06	1	--
1982-83	03/20-03/24	--	1.1
	04/11-04/12	1	--
	04/17-04/22	1.3	1.1
	04/26-04/27	--	1
1983-84	12/13-12/17	3.3	1.1
	04/05-04/11	10	10
	05/30-06/04	3.3	1.7
	07/09	--	1
1984-85	--	--	--

IV.) References:

1) "Water Resources Data for New Jersey", USGS, Water Years 1975-76 through 1984-85.

2) "Passaic River Basin Survey Report for Water Resources", Department of the Army, Corps of Engineers, June 1972.

TABLE II

BRIDGES TARGETED FOR GATED STRUCTURES

Bridge Name	Gated Structure Right Bank (West)	Gated Structure Left Bank (East)
Kingsland Avenue (Nutley-Lyndhurst)	X	X
Rutgers Street/Belleville Tpk. (Belleville/Kearny-N. Arlington)	X	X
McCarter Highway	X	
Main Avenue (Passaic/Wallington)	X	X
8th Street (Passaic/Wallington)	X	X
Wall Street (Passaic/Garfield)	X	
Conrail RR	X	
Monroe Street (Passaic/Garfield)	X	
Harrison Avenue (Newark/Harrison)		X
Route 21 (1)	X	

(1) Route 21 will be impacted by these structures in two sections: Belleville/Nutley/Clifton, and the City of Passaic. It is unclear whether these structures will effect traffic flow. It seems unlikely.

Although some of these bridges will only be effected on one side of the river bank, closure on one side will have the same effect as closure on both banks. The bridge will be rendered unuseable. As a result of the review of this element of the Corps Plan Formulation Document, certain inconsistencies have been noted in the Corps analysis. For example, the Bridge Street Bridgo (Harrison Avenue Bridge) is proposed to have an earthen levy running under it at an elevation of 14.9 feet above sea level, which is approximately 7 to 8 feet above the river bank. However, the Central Avenue Bridge, also known as the Clay Street Bridge, has the same 100-year flood elevation (10 feet above sea level) and top of bank height as the Bridge Street Bridge, but has no berm or floodwall protection and no gated structure, and yet is upstream of the Bridge Street Bridge. This bridge will, therefore, be subject to flood waters from the tunnel outlet prior to the Bridge Street Bridge. The result of this apparent oversight could bring about extensive flooding in parts of Newark, East Newark, and Harrison. However, during design engineering, the Corps should correct this inconsistency and correct the error. Thus, this bridge, too, must require flood gates.

Flood protection devices will be required on all of the older, lower bridges in the Lower Passaic River Valley if the Corps intends to provide flood protection for the 500-year storm. However, it must be noted that the Lower Valley has never been subject to a tidal surge or a 500-year flood event. As such, these flood control proposals can be considered excessive.

If the Corps and the State of New Jersey continue to support this project, they must recognize the problems which will be caused by the closing of the older bridges and redirecting traffic flows to the remaining higher bridges.

Note should be taken that the provision of 500-year flood protection has been rejected by Harrison and Kearny as being excessive and would not adequately provide the protection needed in such an event anyway. Thus this approach is taken by the Corps as an additional element to meet the cost/benefit needs of a federal project. However, not taken into consideration is the economic effect the closing of these bridges would have on the economy of the Greater Newark, south Bergen-Hudson, and Passaic/Clifton areas.

This report was made possible
through a grant from
Bergen and Hudson Counties.

EXHIBIT VI

CONSTRAINTS OF LOCAL STORMWATER INFRASTRUCTURE ON THE FLOOD CONTROL TUNNEL PLAN

The Passaic/Pompton Dual Inlet Diversion Flood Control Tunnel Plan will rely on several factors for its proper operation. The principal factor involves the ability of the local stormwater infrastructure system to accomodate storm flows in a manner consistent with the design of the tunnel plan. In the Upper Basin and Lower Valley reaches of the Passaic River Watershed, the stormwater infrastructure system presents a serious constraint to the functioning of the tunnel, as it has been designed to carry 25- to 30-year and can not accommodate the 100-year storm frequency.

Upper Valley

In this reach, the stormwater system is frequently overburdened during storm events. This is attributable to two causes. The first is rapid development of the region, which has brought about increased surface area and decreased absorptive capacity of the land, resulting in a dramatic increase in stormwater run-off. The second is an existing stormwater system which is underdeveloped or poorly developed.

Combined with these events are the loss of freshwater wetland resources in the watershed and the failure to implement mandatory stormwater controls in individual municipalities.

Given these constraints, it is clear that the stormwater system in the Upper Valley is ill-suited to transfer large amounts of stormwater to the tunnel inlet (a critical component of the tunnel plan) during periods of flooding; many of the areas to be protected will not be.

Lower Valley

The Lower Valley of the watershed is characterized by a complex, antiquated stormwater system. The vast majority of stormwater generated in this reach is discharged directly into the Passaic River. In fact, local officials admit that there exists discharge pipes which can not be located due to their age.

The tunnel plan, however, has failed to discuss how these discharge points will be addressed when the flood walls and berms along the Passaic waterfront are constructed. Unless these pipes are accurately located and a system is developed to re-direct stormwater flow, extensive flooding in the Lower Valley could be the result.

EXHIBIT VII

PASSAIC RIVER COALITION

246 MADISONVILLE ROAD, BASKING RIDGE, NJ 07920 (201) 766-7550

COST/BENEFIT ANALYSIS
AND THE
DUAL INLET TUNNEL DIVERSION PLAN

Benefits

In it's analysis of the cost/benefit ratio for the tunnel plan, the New York District of the Army Corps of Engineers (Corps) estimated that the average annualized benefits for the Passaic River Basin would amount to $130.2 million. This annualized benefit figure will remain constant over time.

Costs

The Corps estimates the cost of the tunnel plan to be $847 million. Using this figure, the cost/benefit ratio for the project is 1.5. However, our research has shown that the Corps cost estimate is not accurate. For example, the recently completed New York City Water Tunnel No. 3, which is nearly identical to the Corps proposal, took 18 years to complete at a cost of $1.1 billion. Assuming the Corps tunnel will cost at least that much, the cost/benefit ratio falls to 1.16. There is currently a proposal to extend the Corps tunnel outlet from Nutley to Newark Bay at an estimated cost of $300-$500 million. This would bring the total project cost to approximately $1.5 billion with a cost/benefit ratio of .85. Finally, assuming the Corps project takes at least as long to complete as New York's tunnel, and adding in interest rates and inflation over that 20 year period, the Corps plan would cost approximately $2.0 billion with a cost/benefit ratio of .64. These figures are summarized below:

	COST	COST/BENEFIT RATIO
Corps Estimate	$847.0 million	1.5
Estimate Based on New York Experience	$1.1 billion	1.16
Adding Proposed Newark Extension	$1.5 billion	0.85
Final Cost with Interest & Inflation	$2.0 billion	0.64

Once the actual costs of this project are closely examined, the Corps tunnel plan fails to meet the requirements of cost/benefit analysis, much less the requirements of the National Economic Development Plan.

EXHIBIT VIII

Board of Chosen Freeholders
County of Bergen
Administration Building • Court Plaza South
21 Main St. • Hackensack, N.J. 07601-7000
(201) 646-2500

Charles J. O'Dowd Jr.
Freeholder Chairman
Richard A. Mola
Freeholder Vice Chairman

Linda Baer
Barbara H. Chadwick
Nicholas Corbiscello
J. William Van Dyke
Charlotte Vandervalk

Mary E. Ward
Clerk to the Board
Michael J. Ferrara
Counsel to the Board

October 17, 1988

Passaic River Coalition
246 Madisonville Road
Basking Ridge, N.J. 07920

Gentlemen:

Re: Support of the Passaic River Coalition's
Proposal to buy out flood-prone homes

We are enclosing certified copy of resolution #48 adopted by the Bergen County Board of Chosen Freeholders on October 5, 1988, supporting the above matter.

Very truly yours,

Mary E Ward

Mary E. Ward
Clerk to the Board

af
Enc.

1700

BOARD OF CHOSEN FREEHOLDERS
RESOLUTION

Res. # 48

Date October 5, 1

Page # 1 of

MEMBERS	AYE	NAY	NOT VOTING	ABSENT
Baer	✓			
Chadwick	✓			
Corbiscello	✓			
Mola	✓			
Vandervalk	✓			
Van Dyke	✓			
O'Dowd, Chrm.	✓			
TOTALS	7	—	—	—

Subject: Passaic River flooding

Purpose: Support proposal of Passaic River Coalition to buy out flood-prone homes.

Offered by: Mola

Seconded by: CHADWICK

Dollar Amt.:

Approved by: TMF

WHEREAS, the Passaic River Coalition, an environmental group concerned with the Passaic River basin which includes Bergen County, has proposed a buyout of flood-prone homes along the Passaic River as a plan to reduce flood damage, and

WHEREAS, the coalition has proposed its plan as an alternative to the 13-mile, 39-foot flood tunnel which has been proposed by the Army Corps of Engineers, a plan which has already been opposed by the Board of Freeholders, and

WHEREAS, the cost of the Passaic River Coalition's plan has been determined to be about $400 million, half of the cost of the Corps's proposed flood tunnel expected to cost more than $800 million in federal and state funds,

NOW THEREFORE BE IT RESOLVED, that this Bergen County Board of Chosen Freeholders hereby reiterates its opposition to a flood tunnel and indicates its support of the Passaic River Coalition's proposal to buy out flood-prone homes, creating open space along the river.

BE IT FURTHER RESOLVED, that copies of this resolution be sent to the Passaic River Coalition advising them of the board's support, to the municipalities in Bergen County, and to the state senators and members of the assembly who represent Bergen County at the state level, urging their support of the coalition's proposal.

Board of Chosen Freeholders

County of Bergen, Hackensack, New Jersey

This is to certify that the attached RESOLUTION, consisting of ______ page (s), is a true copy of a Resolution adopted by the BOARD OF CHOSEN FREEHOLDERS OF THE COUNTY OF BERGEN at a REGULAR Meeting on the 5TH day of OCTOBER, 19 88.

Mary E Ward

Clerk, Board of Chosen Freeholders

COUNTY SEAL

BOARD OF CHOSEN FREEHOLDERS

COUNTY OF HUDSON

COPY OF RESOLUTION

No. 81-2-1990

On motion of Freeholder Cifelli
Seconded by Freeholder Roman

OPPOSE CONSTRUCTION OF PASSAIC RIVER FLOOD TUNNEL

WHEREAS, the U.S. Army Corps of Engineers has presented a proposal for a 13.5 mile, 39 foot wide flood control tunnel as the only solution to flooding in the greater Wayne area; and

WHEREAS, this tunnel will discharge floodwaters into the Lower Passaic River in Hudson County, completely disrupting the riverfront in Hudson County; and

WHEREAS, excessively high floodwalls and levies will be constructed along the riverfront in Hudson County, denying access to the river for the public and seriously effecting the rehabilitation of the urban and industrial areas of Hudson County, seriously effecting economic growth of the region; and

WHEREAS, a recommendation has been made to further extend the tunnel to Newark Bay, which would place even greater damages onto Hudson County; and

WHEREAS, the costs associated with the tunnel project will exceed $1.5 billion with continued operating costs of over $3 million annually, with a substantial portion being paid by residents of Hudson County, who have done nothing to create the problem; and

WHEREAS, the county and the municipalities do not experience flooding and have no need for such floodwalls and levies; and

WHEREAS, the maintenance of such floodwalls and levies would place an undue burden on the county and municipalities; and

WHEREAS, the operation of the tunnel, which calls for the closing of bridges which cross the Passaic River, would cause untold economic losses on the industries and citizens of northern New Jersey and the greater New York area; and

WHEREAS, the environmental problems of the tunnel plan associated with water quality would doom the Lower Passaic forever in spite of federal laws which call for "fishable and swimmable" river systems; and

BOARD OF CHOSEN FREEHOLDERS
COUNTY OF HUDSON

COPY OF RESOLUTION

No.

On motion of Freeholder ______________
Seconded by Freeholder ______________

WHEREAS, development in the flood plains of the greater Wayne area has caused the problems, which should be corrected at the source; and

WHEREAS, viable and more cost effective alternatives exist which the Army Corps of Engineers refuses to explore in an ethical manner; and

WHEREAS, the Office of Management and Budget has recently concluded that the Bush Administration should support the tunnel project in spite of strenuous objections by county and municipal governments and by the people of this region.

NOW, THEREFORE, BE IT RESOLVED by the Hudson County Board of Chosen Freeholders that:

This Board, together with County Executive Robert C. Janiszewski:

1. is absolutely and unequivocally opposed to the construction of the proposed flood tunnel.

2. calls for the cessation and abandonment of all plans involving the construction of the proposed flood control tunnel, floodwalls, levies, etc.

3. requests that no funds be authorized or appropriated or any commitment made to further study, evaluate, design, survey or do anything which would in any form lead to the implementation of flood control to the Lower Passaic River Valley.

COUNTY OF HUDSON

COPY OF RESOLUTION

No.

On motion of Freeholder ____________________
Seconded by Freeholder ____________________

4. directs that copies of this resolution be sent to President George Bush, Governor Jim Florio, all Members of the New Jersey Congressional delegation, and all Members of the New Jersey Legislature with the request that they do all in their power to stop this ill-conceived project permanently.

I, DANIEL T. SANSONE, Clerk of the Board of Chosen Freeholders of the County of Hudson in the State of New Jersey, DO HEREBY CERTIFY the attached resolution to be a true copy of a resolution passed at a meeting of said Board held on February 22, 1990

Daniel T. Sansone
Clerk

County of Essex, New Jersey

BOARD OF CHOSEN FREEHOLDERS

State of New Jersey,
County of Essex } ss

I DANIEL W. GIBSON, JR. *Clerk of the Board of Chosen Freeholders of the County of Essex in the State of New Jersey.*

Do Hereby Certify, *the foregoing to be a true copy of a resolution adopted at a meeting of said Board, on* WEDNESDAY *the* 28TH *day of* SEPTEMBER *19*88*,*

together with the certifications, signatures and endorsements thereon.

RESOLUTION NO. R-88-0806.

In Testimony Whereof, *I have hereunto set my hand and affixed the official seal of said County at Newark, this* 20TH *day of* OCTOBER *A. D. 19*88

DANIEL W. GIBSON, JR. *Clerk*

RESOLUTION OF THE BOARD OF [illegible]
COUNTY OF ESSEX

RESOLUTION NO. R-88-0806 **AUTHORITY FOR RESOLUTION** N.J.S.A. 40:41A-38([illegible])
PROPOSED BY: **AUTHORITY FOR ACTION** E.C.A.C. 3.11([illegible])
Freeholder Gitlin & Freeholder Clay

SUBJECT: PASSAIC RIVER FLOOD TUNNEL

WHEREAS, recently the United States Army Corps of Engineers has completed a feasibility study regarding flooding along the mainstream of the Passaic River; and

WHEREAS, this study recommends the construction of a 13.5 mile, 39 foot wide underground tunnel to carry flood waters from the upper Passaic River regions to the lower Passaic Valley; and

WHEREAS, the construction of the proposed tunnel will result in very damaging consequences to the residents of the Township of Nutley; and

WHEREAS, the construction of this tunnel will result in a hugh volume of water from the Upper Passaic River and requiring the construction of large dikes and floodwalls; and

WHEREAS, this construction will forever alter the present physical environment cutting off the many residents and parklands from the Passaic River; and

WHEREAS, in addition to environmental and aesthetic considerations serious physical problems will result in the construction of the proposed tunnel; and

WHEREAS, some of these serious physical problems include: Disposal of billions of cubic yards of material; No land fill areas are available; The feasability of successful penitration of Garrett Rock Mountain; How will the proposed tunnel be cleaned and maintained?; and Presenting a serious health problem; and

WHEREAS, the proposed tunnel project cost is $845.7 ~~$84.7~~ million and is highly questionable in theory and results; now, therefore, be it

RESOLVED, by the Essex County Board of Chosen Freeholders that it urges that the Passaic River Flood Tunnel proposed by the Army Corps of Engineers be re-evaluated at this stage taking into consideration the significant points enumerated in this resolution; and, be it further

RESOLVED, that a copy of this resolution be forwarded to Senators Bradley and Lautenberg; Congressmen Robert A. Roe, Dean Gallo, and Robert Torricelli; State Senators Joseph L. Bubba- 34th District and Carmine Orechio - 30th District; Assemblypersons John V. Kelly, - 30th District and Marion Crecco - 30th District; Assemblymen Gerald H. Zecker and Newton Miller of the 34th District; the Freeholder Boards of Morris, Passaic, Bergen and Hudson Counties; and Nutley Mayor John V. Kelly; Nutley Township Council; Belleville Township Council and North Arlington Township Council in Bergen County.

Approved as to form and legality

RECORD OF BOARD VOTE (X = Vote N.V. = Abstention ABS = Absent)

Moved by Freeholder GIBLIN
Seconded by Freeholder CLAY

Freeholder	Yes	No	N.V.	ABS	Freeholder	Yes	No	N.V.	ABS
Battle	X				Davenport	X			
Bost	X				Lustbader	X			
Casciano	X				Parlavecchio, VP	X			
Cavanaugh			X						
Clay	X				Giblin, Pres.	X			

It is hereby certified that the foregoing Resolution was (X) adopted ( ) defeated ( ) tabled by roll call vote at a REGULAR meeting of the Board of Chosen Freeholders of the County of Essex, New Jersey, held on September 28, 1988.

If Publication Required ( ) ( ) No

Date Published

Thomas P. Giblin, President

COUNTY OF BERGEN
Administration Building • Court Plaza South • 21 Main Street • Hackensack, N.J. 07601-[illegible]
201 646-3630

William D. McDowell
County Executive

April 10, 1989

Honorable Tom Bevill, Chairman
Energy & Water Subcommittee
House Appropriations Committee
House of Representatives
Washington, DC 20515

RE: PASSAIC RIVER - TUNNEL PLAN
FISCAL 1990 ENERGY 7 WATERS APPROPRIATIONS BILL

Dear Congressman Bevill:

The County of Bergen has repeatedly informed the New York District of the Corps of Engineers of its absolute opposition to the Dual-Inlet Tunnel Plan for flood control for the Passaic River Basin.

When the hearing was held on the draft environmental impact statement in May, 1987, my Chief-of-Staff (then a member of the Board of Freeholders) desired to present a comprehensive statement of our objections to the tunnel plan. He was allowed a few minutes, which clearly showed that the Corps was not at all interested in our point of view. His statement is barely summarized under speakers, and his complete statement is found nowhere in the record. How can this agency glean any idea of our technical objections when the document relates so poorly to our comprehensive presentation?

This bias is further verified by the fact that the New York District recently held meetings in Lincoln Park where they have been formulating a strategy to overcome opposition to the tunnel plan by forming a committee called PROTECT. Instead of taking the direct approach and working to solve flooding problems, they are conniving to propagandize our position, making such innuendoes that the municipalities in the lower valley are misinformed, or have not been told the truth. This kind of approach by the New York District is exactly why the flooding problems in the Passaic Basin have never found resolution.

During deliberations on the environmental impact statement, no comment has been made regarding the effect of the floodwalls and levees on the intertidal zone of the Passaic River. Isn't this zone the most fragile part of an estuarine system? What will the long term effect be of destroying that portion of the Passaic River? Why didn't their aquatic biologist address this issue? How does the destruction of the intertidal zone conform to mandates found in the Clean Water Act and the consensus statement under which this project has been formulated?

Why have issues of water quality degradation not been answered as it relates to the first flush of the tunnel? Why haven't reasonable alternatives been developed? Why hasn't an alternative been developed combining non-structural and structural with a focus on buying those houses in the floodway? Why hasn't the New York District Corps provided a plan which is in conformance with the policies of the Office of Coastal Zone Management? In the draft EIS, the Corps indicated that they did not have to comply with CZM. Then they found they did, but to date, have not shown compliance. When we establish a facility on the waterfront, we must meet consistency requirements of CZM. Why are they being permitted to circumvent these laws? Such action violates federal and state law.

In the EIS the Corps recognizes that municipalities in the lower Passaic are in the middle of a restoration program, but they sluff it aside as some trivial effort instead of the concerted effort of eight cooperating municipalities. The EIS speaks of placing paths or bikeways on top of these levees, but it says nothing about replacing the parklands lost in one of the most densely populated parts of New Jersey. The County of Bergen has maintained two large parks on the lower Passaic since the 1940's; they are actively used. Fifty percent of these parks will be destroyed by the tunnel plan. There is nowhere in the area where these parks can be replaced. Why should our people in South Bergen give up a major recreation base? This loss of public lands is contrary to State Green Acres policy. How is such a taking justified?

Nothing is found in the EIS which acknowledges that a congressionally authorized project exists on the lower Passaic, which would be totally altered by the tunnel plan. This omission is another example of the lack of follow-through of a congressional directive by the New York District and the New York District's attempt to misinform Congress.

Throughout the response document, the Corps states: "The Pompton/Passaic Dual Inlet Tunnel Diversion Plan would not transfer the flood problem from the Central Basin to the lower valley." Then it goes on to state that "the construction of levees and floodwalls would safely contain tunnel discharges..." Isn't this a contradictory statement? If floodwaters were not being transferred to the lower valley, then we wouldn't need such massive floodwalls and levees. Congressman Robert Roe has also recognized this contradiction.

Throughout the response document, the Corps waves off any opinion by an opponent that proper alternatives have not been reviewed. This bias is rampant in the Corps response, and shows their lack of interest in providing a more balanced project.

The New York District also makes reference to increasing river access because of the walkways which will now be created by the taking of private properties. Such access is inappropriate. People's backyards facing the river are private property, and the intrusion caused by walls and levees is not comparable to public access on public lands.

At the conclusion of the response document is attachment A93, which has been drafted by our watershed association, the Passaic River Coalition. This comparison of two concepts places into context two approaches to flood control in the Passaic River Basin. We in Bergen County take strong exception at the cavalier manner in which the New York District responded to the outline.

Why is it that anyone who differs with the Corps is always wrong? Our municipalities hire competent professional staff. The Passaic River Coalition is regarded a a responsible water and land resources agency with highly qualified staff. Yet, all of our towns, the watershed association and our county personnel are dead wrong and the Corps is right.

As an alternative, we have been very interested in getting a better idea as to the feasibility of buying out houses in the floodway of the Passaic River in the most critical areas. After our review of the massive documents which have been developed by the New York District and when we could find only cursory comment regarding a buy-out, we requested our watershed association, the Passaic River Coalition, to look into the matter. Our Board of Freeholders endorses their approach unanimously.

Congress directed the Corps to develop a management approach; they did not. The Passaic River Coalition plan is a common sense approach to the problem, much more environmentally sound, and over the long term costs far less money.

Flooding in the upper Passaic Basin is of great concern to all in this region. However, moving the flooding problem from one area of the region to another at great public expense, makes no logical sense.

Therefore, we recommend that Congress halt any further work on the present approach, and pursue the logical, more ecologically sound program.

Very truly yours,

William D. McDowell
County Executive

WDMcD/bk
cc: Governor T. Kean
Congressmen Torricelli & Roe
Senators Bradley & Lautenberg
Bergen County Legislators
C. Daggett, Commissioner DEP
Essex & Hudson County Executives
Essex, Hudson, Morris & Passaic County Board of Freeholders
Mayors of: E. Rutherford, Garfield, Lyndhurst, North Arlington Nutley, Rutherford & Wallington
Chester Mattson, Bergen County Director of Planning and Economic Development
Passaic River Coalition

HUDSON COUNTY, NEW JERSEY
BOARD OF CHOSEN FREEHOLDERS
ADMINISTRATION BUILDING
595 NEWARK AVENUE, JERSEY CITY, N.J. 07306

201-795-6001

FREEHOLDER ANGELO A. CIFELLI
DISTRICT 8

February 1, 1989

Mr. Let Mon Lee
Headquarters
U.S. Army Corps of Engineers
Washington, D.C. 20314-1000

Dear Mr. Lee:

Re: Passaic River Flood Control Tunnel Plan

The County of Hudson does not support the Dual Inlet Tunnel Plan proposed by the New York District as a flood control program for the Passaic River Basin. We do not support the tunnel plan as it is currently recommended to discharge in Nutley nor do we support it as now being discussed to discharge in Newark Bay.

The New York District of the Corps of Engineers has not met the directive found in the consensus statement in the Water Resources Development Act of 1976 Report, which called for the development of a "flood management program". Putting flood waters into a big pipe and moving it from one area to the Hudson/Bergen County area is "dumping on us". It is far from a management program.

The environmental impact statement is inadequate as it does not respond to issues raised by us and the public regarding water quality impacts, loss of open space and access to the Passaic River without compensation, effect on the intertidal areas of the Lower Passaic River, to mention a few critical issues.

The Corps plan handles our area as the place which will never benefit from the laws passed by Congress and the N.J. Legislature, which call for the improvement of our waterways. It totally disregards the long term effect of the mandate of the Clean Water Act on the Passaic River by not addressing the killing impact of the first flush from the tunnel onto a river which is showing major signs of improvement.

Furthermore, the Secretary of the Army must realize that a project authorized under the Water Resources Development Act of 1986 will be totally destroyed by the berms and floodwalls of the tunnel project. The Lower Passaic River is an urban river system, and is now at the brink of a rebirth in its riverfront development. The Town of Kearny is completing extensive land acquisition and park improvements to complete a greenbelt along the river, and the Town of Harrison has acquired waterfront land which will become a major new urban park. Funds authorized by Congress will allow for major improvements on these riverfront areas of substantial benefit to the environmental and economic viability of this region. An authorized project must take priority over a controversial flood control project.

Note that the authorized Passaic River Restoration Project will benefit thousands of people daily in one of the most urban areas of the United States. The tunnel project does not contain such benefits.

Furthermore, note that the tunnel project will benefit at least three municipalities which have blantantly violated the stormwater management laws of the State of New Jersey as well as Section 404 of the federal Clean Water Act. These towns have themselves filled in wetlands and built roads and buildings in the flood plains of the Passaic River. They have allowed well over thirty private developers to do the same, and the State has not taken action to penalize these offenders. At the same time, the Corps has not taken any definitive steps to bring the Justice Department into action. The Passaic River Study Group has looked at each violation in a narrow manner, indicating that the filling of wetlands will not have a negative impact; yet other federal agencies recognize the cumulative impact of these infractions. The Passaic River Study Group has not done anything to make sure that those in charge of enforcing Section 404 of the Clean Water Act take aggressive actions regarding filling wetlands and destroying the water retnetion capabilities of the Central Passaic River Basin.

The Secretary of the Army should further recognize that with all the concern regarding this floodprone area, in October, 1988 alone, 41 nationwide permits were awarded in the Central Passaic Basin to fill in less than an acre of wetland each. No accounting has taken place over the past year as to the amount of acreage these nationwide permits allow to be destroyed in what is called the "floodprone Passaic River Basin". Before any further action is taken on the tunnel plan, we respectfully request thc Secretary of the Army to undertake a thorough investigation of the blatant granting of permits in this "floodprone" Passaic River Basin.

Finally, the State of New Jersey had a consultant complete a report as to funding the tunnel plan. None of the flooded municipalities where the inlet for the tunnel is proposed, are willing to help pay for the tunnel plan.

Note that the County of Hudson will have no part in spending one cent for this project. We do not support spending money on the local, county, state or federal levels. Other more cost effective alternatives exist, such as the·buy-out of houses in selected areas. The tunnel plan is an archaic project, which does not come close to meeting the mandate of today's concern for the economic stability of this country nor for the people's interest in the environment.

The County of Hudson hereby notifies you that we will do all in our power to stop any tunnel plan for the Passaic River Basin because it is both economically and environmentally poor.

Very truly yours,

ANGELO A. CIFELLI, Freeholder
District 9

AAC:jab

cc: *Guarini*
Bradley
Lautenberg
Darman
Parlavecchio
McDowell
Kean
Daggett
Roe
Gallo
Torricelli
Passaic River Coalition
Members of the Hudson County Legislative Delegation

BOARD OF CHOSEN FREEHOLDERS COUNTY OF ESSEX
HALL OF RECORDS, NEWARK, NEW JERSEY 07102

(201) 621-4477

January 31, 1989

JOSEPH N. PARLAVECCHIO
FREEHOLDER PRESIDENT

Mr. Lee Mon Lee
Office of the Secretary
for Civil Works
Headquarters
U.S. Army Corps of Engineers
Washington, D.C. 20314-1000

Re: Flood Control - Passaic River Basin

Dear Mr. Lee:

The County of Essex, on September 28, 1988, officially went on record in opposition to the tunnel plan.

In 1976, the County of Essex was instrumental in having the Congress adopt the Consensus Statement under which the Corps is currently operating. Never during this thirteen year period did the New York District attempt to obtain guidance on the intent of the Consensus Statement nor work directly with those who formulated that document. On the contrary, exaggerated statements by them have been made regarding certain more environmentally directed elements of the Statement.

Essex County is bordered by the Passaic River on both its eastern and western boundary. All of our municipalities in West Essex are dependent on ground water for their drinking water supply. Currently, the N. J. Geological Survey is involved in a major study to determine the safe yield of the Buried Valley Aquifer Systems (a "Sole Source" aquifer). A letter in the Response document raises many "ifs", but provides no assurances that the tunnel will not draw down ground water. We cannot support a project which could deplete valuable ground water resources.

The arguments against the tunnel in the Lower Passaic are clearly stated in the resolution attached. Reasonable recommendations have been made regarding the buying of houses in the flood plains. The Secretary should direct that a cost/effective alternate be presented along with proper state and local management techniques. Until a more appropriate plan is presented, Essex County does not support the Corps current recommendation.

Very truly yours,

Joseph C. Parlavecchio

Joseph N. Parlavecchio
Freeholder President

ASSEMBLY RESOLUTION No. 3

STATE OF NEW JERSEY

Introduced Pending Technical Review by Legislative Counsel

PRE-FILED FOR INTRODUCTION IN THE 1990 SESSION

By Assemblymen GILL and DUCH

AN ASSEMBLY RESOLUTION **memorializing the United States Army Corps of Engineers to study and evaluate nonstructural alternatives to the "Pompton-Passaic Rivers Dual Flood Control Inlet Tunnel Diversion Plan."**

WHEREAS, The United States Army Corps of Engineers has proposed in its "Pompton-Passaic Rivers Dual Flood Control Inlet Tunnel Diversion Plan" the building of a diversionary tunnel to relieve the periodic flooding in the upper Passaic River basin, at the confluence of the Pequannock and Ramapo Rivers and the Pompton and northern Passaic Rivers;

WHEREAS, The diversionary tunnel plan entails the building of a total of 15 miles of underground tunnels 22 to 39 feet in diameter, river modifications of approximately 5.9 miles, and construction of 23.7 miles of 8 to 19 foot high levees and 13.6 miles of floodwalls;

WHEREAS, The costs of this structural approach to the upper river basin flooding problem include not only an estimated $1 billion in construction and related costs, one fourth of which must be paid by State or the State and affected localities, but also as yet indeterminate annual operating and maintenance costs, which undoubtedly will fall on the residents of communities along the path of the project, whether or not the communities currently suffer from flooding problems;

WHEREAS, The diversion plan provides for the tunnel to empty into the lower Passaic River basin which may exacerbate some of the existing flooding problems of communities along that part of the river basin in the counties of Essex, Bergen and Hudson;

WHEREAS, The project may also have an adverse impact on the replenishment of ground water in the upper river basin;

WHEREAS, The project would result in an asymmetrical distribution of benefits realized and costs incurred on upper river and lower river basin communities; while lower basin communities would assume a substantial portion of the costs of project operations and maintenance and suffer a loss of developed or undeveloped, public and private riverfront properties required for levee construction, upper basin communities would be spared the currents costs of periodic flood damage cleanups and could reclaim tracts of lands in traditionally flood prone areas for intensive development;

WHEREAS, Even if the rather formidable financing, distributional and other problems were resolved to the satisfaction of all the affected communities, the project would take from seven to ten years to complete, during which time upper basin communities would continue to suffer from periodic flooding;

WHEREAS, A strictly structural solution to the flooding problems of the upper Passaic River basin, particularly of the magnitude of the proposed project, had been repeatedly declared to be unacceptable by many of the affected communities and residents;

WHEREAS, There exist not only less costly but also ecologically less disruptive nonstructural alternatives to the diversionary tunnel project that could almost immediately begin to provide at least partial relief to the residents of the flood-prone upper river basin; now, therefore,

BE IT RESOLVED *by the General Assembly of the State of New Jersey:*

1. The General Assembly of the State of New Jersey memorializes the United States Army Corps of Engineers and the State Department of Environmental Protection to study and evaluate, for submission to the New Jersey Legislature, nonstructural alternatives to the "Pompton-Passaic Rivers Dual Inlet Flood Control Tunnel Diversion Plan" that are less costly and environmentally disruptive, that more equitably distribute project benefits and costs, and that provide more immediate, albeit partial and incremental, relief to flood hazard areas of the upper Passaic River basin.

2. Duly authenticated copies of this resolution, signed by the Speaker and attested to by the Clerk of the General Assembly, shall be transmitted to each member of New Jersey's congressional delegation, the Secretary of the United States Department of Defense, the Secretary of the Army, the Chief Engineer, United States Army Corps of Engineers and the Commissioner of the New Jersey Department of Environmental Protection.

STATEMENT

This Assembly Resolution memorializes the United States Army Corps of Engineer to study and evaluate alternatives to the "Pompton-Passaic Rivers Dual Inlet Flood Control Tunnel Diversion Plan."

ENVIRONMENT

Memorializes the United States Army Corps of Engineers to study and evaluate alternatives to the "Pompton-Passaic Rivers Dual Inlet Flood Control Tunnel Diversion Plan."

SENATE RESOLUTION No. 68

STATE OF NEW JERSEY

INTRODUCED MAY 19, 1986

By Senators AMBROSIO, McMANIMON, JACKMAN, COSTA, PATERNITI, CARDINALE, FELDMAN, BASSANO, COWAN, EWING, ORECHIO, DiFRANCESCO, CONTILLO, VAN WAGNER, LIPMAN, O'CONNOR, DALTON, WEISS, LYNCH, RICE, RUSSO, RAND, STOCKMAN, CODEY

A SENATE RESOLUTION memorializing the United States Army Corps of Engineers to study and evaluate nonstructural alternatives to the "Pompton-Passaic Rivers Dual Flood Control Inlet Tunnel Diversion Plan."

WHEREAS, The United States Army Corps of Engineers has proposed in its "Pompton-Passaic Rivers Dual Flood Control Inlet Tunnel Diversion Plan" the building of a diversionary tunnel to relieve the periodic flooding in the upper Passaic River basin, at the confluence of the Pequannock and Ramapo Rivers and the Pompton and northern Passaic Rivers;

WHEREAS, The diversionary tunnel plan entails the building of a total of 15 miles of undergound tunnels 22 to 39 feet in diameter, river modifications of approximately 5.9 miles, and construction of 23.7 miles of 8 to 19 foot high levees and 13.6 miles of floodwalls;

WHEREAS, The costs of this structural approach to the upper river basin flooding problem include not only an estimated $1 billion in construction and related costs, one fourth of which must be paid by State or the State and affected localities, but also as yet indeterminate annual operating and maintenance costs, which undoubtedly will fall on the residents of communities along the path of the project, whether or not the communities currently suffer from flooding problems;

WHEREAS, The diversion plan provides for the tunnel to empty into the lower Passaic River basin which may exacerbate some of the existing flooding problems of communities along that part of the river basin in the counties of Essex, Bergen and Hudson;

WHEREAS, The project may also have an adverse impact on the replenishment of ground water in the upper river basin;

WHEREAS, The project would result in an asymmetrical distribution of benefits realized and costs incurred on upper river and lower river basin communities: while lower basin communities would assume a substantial portion of the costs of project operations and maintenance and suffer a loss of developed or undeveloped, public and private riverfront properties required for levee construction, upper basin communities would be spared the currents costs of periodic flood damage cleanups and could reclaim tracts of lands in traditionally flood prone areas for intensive development;

WHEREAS, Even if the rather formidable financing, distributional and other problems were resolved to the satisfaction of all the affected communities, the project would take from seven to ten years to complete, during which time upper basin communities would continue to suffer from periodic flooding;

WHEREAS, A strictly structural solution to the flooding problems of the upper Passaic River basin, particularly of the magnitude of the proposed project, had been repeatedly declared to be unacceptable by many of the affected communities and residents;

WHEREAS, There exist not only less costly but also ecologically less disruptive nonstructural alternatives to the diversionary tunnel project that could almost immediately begin to provide at least partial relief to the residents of the flood-prone upper river basin; now, therefore,

BE IT RESOLVED *by the Senate of the State of New Jersey:*

1. The Senate of the State of New Jersey memorializes the United States Army Corps of Engineers and the State Department of Environmental Protection to study and evaluate, for submission to the New Jersey Legislature, nonstructural alternatives to the "Pompton-Passaic Rivers Dual Inlet Flood Control Tunnel Diversion Plan" that are less costly and environmentally disruptive, that more equitably distribute project benefits and costs, and that provide more immediate, albeit partial and incremental, relief to flood hazard areas of the upper Passaic River basin.

2. Duly authenticated copies of this resolution, signed by the President and attested to by the Secretary of the Senate, shall be transmitted to each member of New Jersey's congressional delegation, the Secretary of the United States Department of

Defense, the Secretary of the Army, the Chief Engineer, United States Army Corps of Engineers and the Commissioner of the New Jersey Department of Environmental Protection.

STATEMENT

This Senate Resolution memorializes the United States Army Corps of Engineer to study and evaluate alternatives to the "Pompton-Passaic Rivers Dual Inlet Flood Control Tunnel Diversion Plan."

ENVIRONMENT

Air and Water Pollution

Memorializes the United States Army Corps of Engineers to study and evaluate alternatives to the "Pompton-Passaic Rivers Dual Inlet Flood Control Tunnel Diversion Plan."

THE ASSEMBLY
STATE OF NEW JERSEY
TRENTON

MARION CRECCO
ASSEMBLYWOMAN 30TH DISTRICT
ESSEX COUNTY
1029 BROAD STREET
BLOOMFIELD, NJ 07003
201-336-7552

COMMITTEES
VICE-CHAIRWOMAN
STATE GOVERNMENT
MEMBER
INDEPENDENT & REGIONAL AUTHORITIES

July 22, 1988

Ms. Ella F. Filippone , Ph.D.
Passaic River Coalition
246 Madisonville Road
Basking Ridge, New Jersey 07920

Dear Ms. Filippone:

Thank you for sharing with me a copy of a recent editorial on the flood tunnel which appeared in Orechip Publications newspapers. I reas this with great interest.

Also, thank you for your kind invitation on September 14. I will be pleased to attend this meeting.

I am 100 percent against the construction of this tunnel, and will assist the Coalition in any way possible.

Sincerely,

Marion Crecco

Marion Crecco
Assemblywoman
Essex County

MC/jjs

THE ASSEMBLY
STATE OF NEW JERSEY
TRENTON

THOMAS J. DUCH
ASSEMBLYMAN, 36TH DISTRICT
BERGEN-PASSAIC COUNTIES
117 MIDLAND AVENUE
GARFIELD, NJ 07026
201-478-1010

COMMITTEES
MEMBER, ENVIRONMENTAL QUALITY
MEMBER, COUNTY GOVERNMENT AND
REGIONAL AUTHORITIES

March 2, 1990

Chairman
House Public Works Committee
Subcommittee on Water Resources
House Office Building
Washington, D.C.

Gentlemen:

I write to you representing the people of Assembly Legislative District 36, which includes Bergen and Passaic Counties in New Jersey. The flood control proposal before you has neither my support nor the support of my constituents. We do not support the authorization of the dual-inlet tunnel plan in any form whether it discharges at Nutley/Clifton or at Newark Bay.

In formulating this project, the New York District of the Army Corps of Engineers has failed to address the directives found in the consensus statement in the Water Resources Development Act of 1976 Statement, which called for the development of a "flood management program." Taking flood waters from one area and transferring them to another is far from being a management program.

Environmentally and economically, this project is unacceptable.

I have co-sponsored New Jersey Assembly Resolution No. 3 which memorializes the Corps of Engineers to "develop comprehensive and diversified nonstructural alternatives, including acquisition of flood-prone residential structures at greatest risk, flood proofing, and wetlands preservation, to replace the "Pompton-Passaic Rivers Dual Flood Control Inlet Tunnel Diversion Plan." This resolution is presently before the Assembly Conservation and Natural Resources Committee, of which I am Chairman. This resolution will be released soon and should pass the New Jersey General Assembly with a substantial majority.

Chairman
Subcommittee on Water Resources
March 2, 1990
page two

I believe that a floodplain buy-out program is the best manner in which to proceed. Such a buy-out program would produce critically needed parkland and open space in northern New Jersey at substantial savings to taxpayers as it compares to the tunnel plan. I have also sponsored legislation which would fund a residential buy-out in the Passaic River Basin.

I urge the members of this committee to carefully consider the large block of opposition to the tunnel plan in the State of New Jersey and in the State Legislature. Once done, I am confident that along with me, you too will reject this plan as a non-viable federal flood control project.

Thank you for your consideration.

Very truly yours,

Thomas J. Duch
Assemblyman

TJD:sk

THE ASSEMBLY
STATE OF NEW JERSEY
TRENTON

DAVID C. KRONICK
ASSEMBLYMAN, 32ND DISTRICT
HUDSON COUNTY
7911 BERGENLINE AVENUE
NORTH BERGEN, NJ 07047
201-861-1111

COMMITTEES
MEMBER, ENVIRONMENTAL QUALITY
MEMBER, CONSERVATION, NATURAL
RESOURCES AND ENERGY

March 3, 1989

Mr. Richard Darman, Director
Office of Management and Budget
Executive Office Building
725 17th Street, NW
Washington, D.C. 20503

Dear Mr. Darman:

Re: Passaic River Flood Control Tunnel Plan

The purpose of my letter is to advise that I do not support the Dual Inlet Tunnel Plan proposed by the New York District as a flood control program for the Passaic River Basin. The tunnel plan does not have my support as it is presently recommended to discharge in Nutley, nor as it is being discussed now to discharge in the Newark Bay.

I believe that the authorized Passaic River Restoration Project will benefit thousands of people daily in one of the most urban areas of our country; the tunnel project does not contain such benefits. Further, paying for the tunnel plan is contrary to Governor Kean's policy and violates the rules and regulations established by Congress.

I would support an alternative to the "buy-out houses" idea in the floodway; buying out houses in the floodway would be more cost effective, more humane, and ecologically sound. Our wetlands should not be destroyed; they should be preserved. Ninety-five of the municipalities depend on the ground water for drinking water supply; they cannot afford to lose a single drop to the tunnel.

It is my belief that local funds should not be used as part of the cost-sharing for the tunnel project.

Furthermore, local governments cannot afford to spend funds on maintenance of the tunnel. Overall, I find the tunnel plan for the Passaic River Basin both environmentally and economically very poor.

Very truly yours,

David C. Kronick
Assemblyman

bcc: Passaic River Coalition
Basking Ridge

/ah

THE ASSEMBLY
STATE OF NEW JERSEY
TRENTON

GERALD H. ZECKER
ASSEMBLYMAN 34TH DISTRICT
PASSAIC-ESSEX COUNTIES
150 CLOVE ROAD, SUITE 10
LITTLE FALLS, NJ 07424
201-256-5563

COMMITTEE
CHAIRMAN
INSURANCE

June 19, 1989

Mr. Joseph A. Cundari
Town Engineer
Township of Harrison
Town Hall
318 Harrison Avenue
Harrison, New Jersey 07029

Dear Mr. Cundari:

Thank you for a copy of the resolution adopted by the Mayor and Council of Harrison opposing the Dual Inlet Tunnel Plan for the Passaic River basin.

As you know, I have been a skeptic and opponent of the Army Corps of Engineers Dual Inlet Tunnel Plan since its inception. It is too costly and would take too long to build. I have introduced three bills in the Assembly, A-1872, A-1882, and A-1883, to provide limited interim of flood relief for the most effected areas, until a better plan than the Tunnel Project could be formulated.

Furthermore, be assured, I fully support Assembly Resolution No. 124. I will continue to push for an equitable and permanent solution to the flooding problems in the Passaic River basin.

Thank you again for a copy of your resolution. If I can be of further assistance in this matter, please feel free to contact my office. Best regards.

Sincerely,

Gerald Zecker

GERALD H. ZECKER
Assemblyman, 34th District

THE ASSEMBLY
STATE OF NEW JERSEY
TRENTON

JOSEPH CHARLES, JR.
ASSEMBLYMAN 31ST DISTRICT
HUDSON COUNTY
490 COMMUNIPAW AVENUE
JERSEY CITY, NJ 07304
201-432-1400

COMMITTEES
STATE GOVERNMENT
INSURANCE
LAND USE AND PLANNING

February 15, 1989

Mr. Let Mon Lee
Headquarters
U.S. Army Corps of Engineers
Washington, D.C. 20314-1000

Dear Mr. Lee;

This letter is to express my strong opposition to the Dual Inlet Tunnel Plan proposed by the New York District as a flood control program for the Passaic River Basin.

I will not repeat the detailed reasons set forth in the February 1 letter of the Honorable Angelo Cifelli, Hudson County Freeholder. Suffice it to say that I agree with Mr. Cifelli's conclusion that the proposal is undesirable both economically and ecologically, and further that it does not qualify as a flood management program.

The Corp's proposed tunnel would have an adverse impact on the State of New Jersey and the various localities affected by it. Our state is one of the most urbanized in the nation, and we are trying to restore our waterfront land for the benefit of our residents. As a legislator I will do everything in my power to prevent the implementation of this plan. I urge you to pursue other alternatives that will not impose hardships on the residents of our area.

Very truly yours

Joseph Charles

cc: Hon. Frank Guarini
Hon. Bill Bradley
Hon. Frank Lautenberg
Mr. Richard Darman
Hon. Robert Toricelli
Hon. Thomas Kean
Hon. Angelo Cifelli
Passaic River Coalition
Members of the Hudson County
Legislative Delegation

NEW JERSEY SENATE

CARMEN A. ORECHIO
PRESIDENT PRO TEMPORE
NEW JERSEY STATE SENATE
30TH LEGISLATIVE DISTRICT
800 BLOOMFIELD AVENUE
NUTLEY, NEW JERSEY 07110
[illegible]

February 22, 1989

Mr. Let Mon Lee
Headquarters
U. S. Army Corps of Engineers
Washington, D. C. 20314-1000

Dear Mr. Lee:

I would like to acquaint you with my position regarding the proposed Passaic River Tunnel Plan designed by the New York District of the Army Corps of Engineers.

The tunnel's primary inlet would empty into a portion of the Passaic River that is within my district and would impact adversely upon the local communities.

The effect of the influx of flood waters would be quite injurious to the surrounding areas. The project also creates the potential for acute drainage problems as well as damage caused by elevated levels of the Passaic River. Also, the costs that would be incurred for the tunnel's maintenance and storm water management loom as areas of additional concern.

I will oppose any state funding for this plan and will channel my energies into finding a more viable solution to this problem.

Very truly yours,

Carmen A. Orechio

CAO/dq

NEW JERSEY SENATE

THOMAS F. COWAN
SENATOR, 32ND DISTRICT (HUDSON COUNTY)
122 HIGHLAND AVE.
JERSEY CITY, NEW JERSEY 07306
201-798-4101

May 15, 1989

Mr. Joseph A. Cundari
Town Engineer
The Town of Harrison
Town Hall
318 Harrison Avenue
Harrison, New Jersey 07029

Dear Mr. Cundari:

Thank you for writing me to express your opposition to the U.S. Army Corps of Engineers' Pompton/Passaic Dual Inlet Tunnel Diversion Plan. As always, I appreciate your input and urge you to contact me again regarding any state issue.

I agree with the sentiment expressed in the resolution adopted by the mayor and council regarding the U.S. Army Corps of Engineers' Plan. The current plan to control flooding in the region certainly does not address the safety and financial concerns of Harrison residents. Obviously, we need to study other alternatives at this stage and examine the impact of any plan on area residents.

Please be assured that I will work with your town officials to address this issue. Do not hesitate to let me know if I can be of further assistance.

Sincerely,

Thos F Cowan

THOMAS F. COWAN
SENATOR
TFC/sh

CC: Mayor Frank E. Rodgers
Miss J.M. Catrambone, Town Clerk

BOROUGH OF EAST RUTHERFORD
MUNICIPAL BUILDING
ONE [illegible] PLACE
EAST RUTHERFORD, NEW JERSEY 07073

FEB 21 1989

Mr. Let Mon Lee
Office of the Chief of Engineers for Civil Works
Headquarters
U. S. Army Corps of Engineers
Washington, D. C. 20314-1000

Dear Mr. Lee:

The Borough of East Rutherford has long been opposed to the tunnel plan because it is only transferring a problem from one part of the Passaic River Basin to another, not solving it.

East Rutherford is a small urban community where most of the land has been developed for commercial and residential uses. The Borough has been buying the remaining land for use as passive parks. At a recent meeting, the people of East Rutherford packed the Borough Hall to show their support for parkland development in the Borough. All of this will be lost if the tunnel flood walls are built. Why must the hard working people of East Rutherford be asked to lose their river access and share in the financial burden that the tunnel will create? The truth is we should not have to do this.

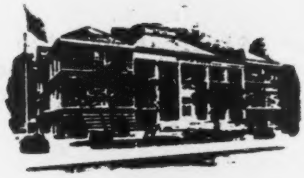
Because the tunnel creates more problems than solutions, the Borough of East Rutherford totally opposes its construction.

Sincerely yours,

James L. Plosia,
Mayor

cc: Torricelli
Roe
McDowell
Kean
Daggett
Bradley
Lautenberg

to file



Borough of Rutherford
176 Park Avenue
New Jersey
07070

GLENN D. ELLIOT
MAYOR

(201) 939-0020

March 21, 1988

The Honorable Thomas H. Kean
Governor
State House
Trenton, New Jersey 08625

Dear Governor Kean:

The Borough of Rutherford is a community located along the Lower Passaic River Basin which has long been committed to improving the quality of life along the River. We have been diligent with regard to drainage and stormwater management and have provided significant funding and support for the restoration of the Passaic River Waterfront. It is our firm commitment to continue these activities into the future. Please recognize that the Borough of Rutherford has not caused the flooding problems that exist in the Passaic River Basin, but is being forced to have floodwalls and berms constructed along it beautiful and useful waterfront.

We are very concerned about the negative impact that the proposed U.S. Army Corps of Engineers Dual Tunnel Inlet Plan will have upon our commitment to a restored waterfront. We believe that the Passaic River, as it currently exists, has the capacity to contain flood waters in the Lower Valley.

Flooding in the Basin has become problematic due to excessive and sometimes illegal development. The tunnel as presented will negatively affect local economic growth, water quality, access to and use of the River, and will permanently disrupt living conditions for residents along the River in the Borough of Rutherford. Most importantly, such a plan will negate our activities to restore the Waterfront. As a result of these impacts, we have joined with all other municipalities in the lower Basin in opposing the tunnel plan and collectively, we request that you reject this plan.

The Passaic River Coalition has developed a conceptual buy-out plan, which should be considered as an alternative. Before you take any action, you should seriously consider a better method - ecologically and economically.

Sincerely,

Glenn D. Elliot
Mayor

GDE:cl

cc: Senator Ambrosio
Assemblyman Duch
Assemblyman Gill

Office of the Mayor

Borough of North Arlington

214 Ridge Road
North Arlington, New Jersey 07032
(201) 991-6060

Leonard R. Kaiser
Mayor

January 31, 1989

Mr. Let Mon Lee
Headquarters
U. S. Army Corps of Engineers
Washington, D.C. 20314-1000

Dear Mr. Lee:

RE: Passaic River - Flood Tunnel Plan

We in the Borough of North Arlington have informed the New York District Corps of Engineers of our objections to the Tunnel Plan on several occasions. They ignore our comments. We are moving forward in the purchase of land for parkland along the Passaic River, which is supported by the people of North Arlington. We object to our athletic field being considered for a pooling area for the tunnel plan.

We do not have the financial or manpower resources to deal with the management of pumps required to get water into the Passaic River during a storm once those levies and floodwalls are in place. Right now, we do not experience any flooding problems nor any back-ups. The Passaic River is fully capable of handling our stormwater run-off.

While the direct negative effect this plan will have in North Arlington is acknowledged, please note that nothing has been done by the New York District to attempt to develop an alternative which would not "dump" on us. Furthermore, the long term costs associated with this project, whether it discharges at Nutley or Newark Bay, are reprehensible. During a time when

Mr. Let Mon Lee
January 31, 1989
page two:

both the state and federal governments are calling for a decrease in spending, how can a poor project such as this one be advocated by the Corps of Engineers. The Secretary should reject this project, and carefully access how the New York District has not done the job Congress directed them to undertake.

Very truly yours,

Leonard R. Kaiser

Leonard R. Kaiser

LRK:jlb

cc: Torricelli
Roe
McDowell
Bradley
Lautenberg
Kean
Daggett

bcc: Passaic River Coalition

SHARPE JAMES
MAYOR
NEWARK, NEW JERSEY
07102

February 15, 1989

Mr. Let Mon Lee
Headquarters
U.S. Army Corps of Engineers
Washington, D.C. 20314-1000

Dear Mr. Lee:

Re: Passaic River - Tunnel Plan

The City of Newark has repeatedly informed the Corps of Engineers of its opposition to the Tunnel Plan for the Passaic River Basin.

We object to the concept, to the placement of floodwalls and berms on our waterfront, to the initial cost, the potential forcost overruns, and the long term maintenance costs.

The City of Newark has been a major steward of this watershed not only within its own city boundaries, but is holding hundreds of open lands in the Pequannock watershed, which we we intend to continue to own.

We do not support the tunnel project as planned and respectfully request the Secretary of the Army to consider the burden this project will place on the City of Newark and the State of New Jersey. The project should be redirected to deal with the problem at its source and not transfer problems to this City as well as neighboring municipalities who did not create the flooding problem in the first place.

Sincerely yours,

Sharpe James

Sharpe James
Mayor

SJ:cc

Resolution No. 88-124

PREAMBLE

88-124
4/5/88

The United States Army Corp of Engineers completed a feasibility study on the flooding problems along the mainstream Passaic River. Under the 1976 Water Resources Development Act, a Phase I Advanced Engineering and Design Study was completed. The final report recommends the construction of a flood control project which consists of a large diversionary tunnel, levee-floodwalls, channel modification, and the preservation of 350 acres of natural flood storage to provide levels of protection ranging from a 100 year to a 500 year event for the Passaic River Basin's major flood damage areas. The Key feature of this plan is a 13.5 mile, 39-foot diameter underground main tunnel which would convey flood waters from the Upper Passaic River regions to the Lower Passaic Valley. On the Lower Passaic River, there would be erected floodwalls along the Passaic, the Second and Third Rivers.

This report has now been forwarded to the Board of Engineers for Rivers and Harbors at Fort Belvoir, Virginia. This Board will review and take final action with any necessary changes, referring its report to the Chief of Engineers who will then circulate for review and comments to the concerned state offices and to federal agencies in Washington in accordance with established Corps of Engineers procedures. At that time the main report, including the Final Enviornmental Impact Statement, will be filed with the Enviornmental Protection Agency.

* * * * * * *

WHEREAS, a recent press release found in the March 3, 1988 issue of the Nutley Journal states that U.S. Senator Bill Bradley has expressed his support of this flood tunnel project and he is quoted as stating, "Please be sure that I will support congressional appropriations to implement this plan and alleviate the flooding problem in Little Falls", and

WHEREAS, Senator Bradley is referring to the Army Corps of Engineers feasibility report which has now been forwarded onto the Board of Engineers for Rivers and Harbors at Fort Belvoir, Virginia, and

WHEREAS, the City of Garfield has continually opposed the concept of this 13.6 mile tunnel which will empty its flood waters into the Third River, a few hundred yards in from the westerly bank of the Passaic River, and

WHEREAS, the Army Corps of Engineers recognized that such an introduction of a volume of water as anticipated will require high dikes and floodwalls to protect the municipalities fronting on the Lower Passaic River from flooding caused by the introduction of this huge volume of Upper Passaic River flood waters, and

WHEREAS, our neighbors on the east bank of the Passaic River, an area where extensive and beautiful parklands have been developed over the years, will be cut off from the river by these high dikes and levees, changing the whole concept of our environmental life forever, and

WHEREAS, the proposed solution is only transferring a very serious flooding problem from one site to another without correcting the problem where it now exists,

NOW THEREFORE, BE IT RESOLVED, by the Council of the City of Garfield that we hereby stand united in our opposition to this tunnel concept and urgently ask that Senator Bradley show his interest and concern by studying how important the problem of the Lower Passaic River Valley is to the environment in this area, and

BE IT FURTHER RESOLVED that we encourage and very strongly request that Senator Bradley join us in opposing this costly and ill-conceived tunnel project, and

BE IT FURTHER RESOLVED that a copy of this resolution be forwarded to U.S. Senators Bill Bradley and Frank Lautenberg, Congressmen Robert Torricelli, Robert Roe, Peter Rodino and Frank Guarini, the Passaic River Coalition, the Army Board of Engineers for Rivers and Harbors, the N.J. Department of Environmental Protection and all the municipalities bordering on the Passaic River south of the Dundee Dam.

Irene L Jarosz

	[illegible]	[illegible]	[illegible]	[illegible]
JAROSZ	X			
ROSOLEN				X
GERVATO	X			
CALANDRIELLO	X			
DUCH	X			

The foregoing is a true and correct copy of a resolution adopted by the City Council at a Regular Meeting held on Tuesday, April 5, 1988.

Andrew J. Pavlica, CITY CLERK

The Town of Harrison
OFFICE OF THE TOWN ENGINEER
TOWN HALL, 318 HARRISON AVENUE
HARRISON, NEW JERSEY 07029

JOSEPH A. CUNDARI
Town Engineer
268-2446- 483-2091

June 12, 1987

Senator Frank Lautenberg
U. S. Senate
Washington, D.C. 20510

Re: Dual Inlet Tunnel Plan
Passaic River Basin

Dear Senator Lautenberg:

Enclosed is a copy of Resolution adopted by the Mayor and Council of the Town of Harrison on June 4, 1987, opposing the Pompton/Passaic Dual Inlet Tunnel Diversion Plan proposed by the U.S. Army Corps of Engineers as an acceptable solution to the flooding problems in the Central Passaic River Basin.

The proposed construction is definitely not in the best interests of the Town of Harrison.

We recommend that the alternate solutions mentioned in the Resolution be pursued since they will involve only a one time cost and end the problem once and for all.

Your support of the Town of Harrison's position in this matter will be greatly appreciated.

Very truly yours,

JOSEPH A. CUNDARI,
Town Engineer

JAC:mn
Enclosure

CC: Mayor Frank E. Rodgers
Miss J.M. Catrambone, Town Clerk

JUNE 4, 1987

TOWN OF HARRISON
COUNTY OF HUDSON
RESOLUTION

WHEREAS, flooding in the Central Passaic River Basin has repeatedly threatened the safety and welfare of the public and damaged property, and will continue to threaten the well being of the public in the future; and

WHEREAS, the Town of Harrison located at the southern most end of the Lower Passaic River Valley, has not contributed in any way to increasing flooding problems upstream, especially in the Central Passaic River Basin; and

WHEREAS, the U.S. Army Corps of Engineers has developed a flood control plan known as the Pompton/Passaic Dual Inlet Tunnel Diversion Plan which will transfer massive quantities of water thru a 39 ft. diameter, 14 mile long underground tunnel to the lower valley municipalities which do not now experience the kinds of flooding seen in the Central Passaic River Basin; and

WHEREAS, the proposed plan requires the construction of flood walls and levees along the shore line of the Town of Harrison in order to protect the low lying areas of the town against the threat of the increased flow and thereby passing the problem to our citizens and seriously affecting the future of the commercial and industrial areas of the Town of Harrison; and

WHEREAS, representatives of the floodprone municipalities have publicly stated they would withdraw their support of the dual inlet tunnel plan, if the project threatens the municipalities of the Lower Passaic;

NOW, THEREFORE BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE TOWN OF HARRISON, IN THE COUNTY OF HUDSON AND STATE OF NEW JERSEY: that

1. The Town of Harrison most seriously objects to the dual inlet tunnel project or any other plan which would require the protection of floodwalls or levees along the Harrison shore line of the Passaic River.

2. The Town of Harrison supports a flood control program which centers mainly on a buyout of floodprone homes, floodproofing, utilization of the flood prone areas as retention basins, and other nonstructural methods of flood control which will give immediate relief, will not effect the waterfront of our community and will basically involve only a one time cost and end the problem once and for all.

3. The Town of Harrison opposes participation in the financing of the dual inlet tunnel project which is presently estimated well in excess of a Billion Dollars and future yearly maintenance costs which will involve many millions of dollars and will go on forever.

4. BE IT FURTHER RESOLVED THAT a copy of this resolution shall be forwarded to all Congressional and State legislators, the County Boards of Chosen Freeholders, as well as the Governor, the Commissioner of the N.J. Department of Environmental Protection, the Army Corps of Engineers, and the U.S. Environmental Protection Agency.

/s/ MARGARET M. MC GUIGAN
COUNCILMAN

I CERTIFY this is a true
copy of a Resolution adopted
by the Mayor and Council at
their meeting held June 4, 1987.

Josephine M. Catrambone
JOSEPHINE M. CATRAMBONE, TOWN CLERK

HARRISON, NEW JERSEY
OFFICE OF THE MAYOR

FRANK E. RODGERS
MAYOR

March 6, 1990

Chairman Novak
Subcommittee on Water Resources
House Public Works Committee
Washington, D.C.

Re: Pompton/Passaic Dual Inlet
Tunnel Diversion Plan
Passaic River Bank

Dear Mr. Novak:

It has come to the attention of our Governing Body that the Office of Management and Budget in the Executive Office of the President has recommended support of the above entitled project in spite of the strenuous objections by County and municipal governments and the people of the lower Passaic River Basin which presently does not experience flooding.

The Dual Inlet Tunnel Plan calls for the construction of floodwalls and levies which will complicate the disposal of stormwater run-off which now is not a problem and will have a negative impact on industry and seriously affect the economic growth of the region. The maintenance of these floodwalls and levies would place an unnecessary financial burden on our taxpayers and those of the other municipalities as well.

The costs associated with this project are presently estimated by the Corps of Engineers as $879 million for construction with 25% of the cost to be funded by the State of New Jersey. If the extension of the point of discharge to Newark Bay is given serious consideration, the costs will increase by $300 million and by the time the project is fully completed it will in all probability exceed $1.5 billion with continued operating and maintenance costs of over $3 million annually with a substantial amount of the States portion being paid by the taxpayers of the Town of Harrison who have done nothing to create the problem.

The uncontrolled development in the flood plains of the Central Passaic River Valley, in complete disregard of the National Flood Insurance Program Regulations caused the problem. This problem did not surface overnight but has been one of long standing over a period of many decades. Noncompliant communities should not be subsidized by taxpayers in the substantial majority of Communities that have made a conscientious effort to abide by the rules and regulations of the National Flood Insurance Program.

The Town of Harrison is opposed to the Tunnel Project, however, we respectfully request support for a flood management program which centers mainly on a buy-out of floodprone homes, floodproofing, and other nonstructural methods of flood control which also could be beneficial in solving the water shortage problems experienced in the State from time to time. This will involve only a one time cost and end the problem once and for all.

Your support of the Town of Harrison's position is urgently requested.

Yours very truly,

Frank E. Rodgers

FRANK E. RODGERS
Mayor

FER:mn

TOWN OF HARRISON
HUDSON COUNTY
NEW JERSEY

March 6, 1990

RESOLUTION

WHEREAS, flooding has been a problem for a great many years in the Passaic River Basin and especially serious in the Central Passaic River Valley, also known as the greater Wayne area; and

WHEREAS, the United States Army Corps of Engineers has presented a Proposal for a 13.5 mile, 39 foot diameter flood control tunnel knwon as the Dual Inlet Tunnel Plan as the only solution to flooding in the greater Wayne area; and

WHEREAS, this tunnel would transfer massive amounts of flood waters from the greater Wayne area to Nutley with a severe impact on the riverfront of the Town of Harrison which lies downstream from the point of discharge into the Passaic River; and

WHEREAS, the proposed plan calls for the construction of excessively high flood walls and levies along the riverfront of the Town of Harrison denying access to the river for the public and seriously affecting the rehabilitation and economic growth of the urban and industrial areas of our Town and other municipalities in the lower Passaic River area as well; and

WHEREAS, a recommendation is being considered by the United States Army Corps of Engineers to further extend the tunnel to discharge into the Newark Bay which would still have an undesirable and detrimental impact on the lower Passaic; and

WHEREAS, the proposed tunnel project originally estimated at a minimum of $845 million will exceed $1.5 billion with continued operating costs of over $3 million annually with a substantial portion being paid by the residents of the Town of Harrison who have had no responsibility whatsoever for creating the problem; and

WHEREAS, the Town of Harrison and the other municipalities in the lower Passaic basin do not experience flooding under present conditions and have not had any need for such flood walls and levies as are being planned for this project; and

WHEREAS, the maintenance of such flood walls and levies would place an undue financial burden on the Town of Harrison and complicate the disposal of surface drainage under ordinary conditions; and

WHEREAS, the operation of the tunnel which calls for the closing of low level bridges which cross the Passaic River during a flood emergency would cause a serious disruption to vehicular traffic and cause serious economic losses for the industries and citizens in the Town of Harrison and the surrounding area; and

WHEREAS, the environmental problems of the Dual Inlet Tunnel Plan associated with water quality would have a serious detrimental impact on the lower Passaic forever in spite of federal regulations which call for "fishable and swimmable river systems; and

TOWN OF HARRISON
HUDSON COUNTY
NEW JERSEY

March 6, 1990

RESOLUTION
(Cont'd)

WHEREAS, unwise development in the flood plains of the greater Wayne area in violation of the National Flood Insurance Program Regulations has caused the problems which should be corrected at the source; and

WHEREAS, viable and more cost effective alternatives exist which the United States Army Corps of Engineers has not fully explored within reasonable limits; and

WHEREAS, the Office of Management and Budget of the Executive Office of the President has indicated support for the tunnel project over the strenuous objections by the officials of the County and municipal Governments and the people in the lower Passaic Valley.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE TOWN OF HARRISON IN THE COUNTY OF HUDSON AND STATE OF NEW JERSEY:

1. The Governing Body is absolutely and unequivocally opposed to the proposed flood control tunnel project regardless of whether the point of discharge is at the Nutley line in the Passaic River or in the Newark Bay.

2. The Governing Body respectfully request support for a flood management program which centers mainly on a buyout of flood prone homes, flood proofing, and other non-structural methods of flood control.

3. That there be a cessation and abandonment of all plans involving the construction of the proposed flood control tunnel, flood walls, levies and all other appurtenant work.

4. That no funds be authorized or appropriated or any commitment made to further study, evaluate, design, survey, or do anything which would in any form lead to the implementation of a flood control tunnel to the lower Passaic Valley or the Newark Bay.

5. Since the Town of Harirson was not responsible for the flooding problem in the Central Passaic River Valley and will not benefit from the proposed tunnel plan, we, therefore, will not assume any responsibility as a non-federal sponsor nor any financial obligation for a cost sharing of the project now or in the future.

6. That the Town Clerk be and she is hereby instructed to forward a copy of this Resolution to the President of the United States, the Governor of the State of New Jersey, all members of the New Jersey Congressional Delegation and all members of the New Jersey Legislature with the request that they do all in their power to stop this ill-conceived project permanently.

Margaret M. McGuigan
COUNCILMAN

I HEREBY CERTIFY this is a true
copy of a Resolution adopted by
the Mayor and Council at their
meeting held March 6, 1990.

Josephine M Catrambone
JOSEPHINE M. CATRAMBONE, TOWN CLERK

TOWN OF KEARNY
HUDSON COUNTY, NEW JERSEY

DANIEL T. SANSONE
MAYOR

February 16, 1989

Mr. Let Mon Lee
Headquarters
U.S. Army Corps of Engineers
Washington, D.C. 20314-1000

Dear Mr. Lee:

Re: Passaic River - Tunnel Plan

The Town of Kearny has gone on record as being opposed to the Tunnel Plan for the Passaic River Basin, and wishes to inform the Secretary of the Army that this position is firm.

For decades we have been acquiring parkland along the Passaic River and are farther along in establishing a greenway than any other municipality in this river valley. We have managed our drainage well and do not experience flooding. We object to being forced into a situation caused by the mismanagement of land in the Greater Wayne area.

The Secretary of the Army should recognize that we in Kearny do not want any part of the Tunnel Plan and should not send it on to Congress.

Very truly yours,

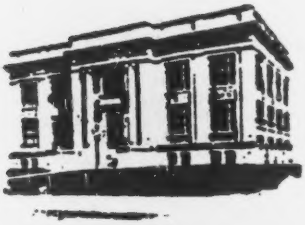
Daniel T. Sansone

Daniel T. Sansone
Mayor

DTS:lmc

c.c. Cifelli
Guarini
Roe
Torricelli
Kean
Bradley
Lautenberg
Daggett

MAYOR
JOHN E. GAGLIARDI
Director



DEPARTMENT OF
PUBLIC SAFETY

MUNICIPAL BUILDING

LYNDHURST, N.J. 07071
Tel. (201) 438-0566

March 11, 1988

Hon. Thomas H. Kean
Governor
The State House
Trenton, N.J. 08625

Dear Governor Kean:

The Township of Lyndhurst, N.J. is a community located along the Lower Passaic River Basin which has long been committed to improving the quality of life along the River. We have been diligent with regard to drainage and stormwater management and have provided significant funding and support for the restoration of the Passaic River Waterfront. It is our firm commitment to continue these activities into the future. Please recognize that The Township of Lyndhurst has not caused the flooding problems that exist in the Passaic River Basin, but is being forced to have floodwalls and berms constructed along its beautiful and useful waterfront.

We are very concerned about the negative impact that the proposed U.S. Army Corps of Engineers Dual Tunnel Inlet Plan will have upon our commitment to a restored waterfront. We believe that the Passaic River, as it currently exists, has the capacity to contain flood waters in the Lower Valley.

Flooding in the Basin has become problematic due to excessive and sometimes illegal development. The tunnel as presented will negatively affect local economic growth, water quality, access to and use of the River, and will permanently disrupt living conditions for residents along the River in The Township of Lyndhurst. Most importantly, such a plan will negate our activities to restore the Waterfront. As a result of these impacts, we have joined with all of the other municipalities in the lower Basin in opposing the tunnel plan and collectively we request that you reject this plan.

The Passaic River Coalition has developed a conceptual buyout plan, which should be considered as an alternative. Before you take any action, you should seriously consider a better method - ecologically and economically.

Respectfully,

John E. Gagliardi
Mayor

TOWNSHIP OF MAHWAH
MUNICIPAL BUILDING
211 FRANKLIN TURNPIKE
MAHWAH, NEW JERSEY 07430-1807
FAX: 201-529-0081

Office of the Mayor
William H. Raquet
(201) 529-5757

PLEASE MAIL TO:
P.O. BOX 733

COUNTY EXECUTIVE OFFICE
1989 FEB -6 P 1:49

January 27, 1989

Mr. Let Mon Lee
Headquarters
U.S. Army Corps of Engineers
Washington, D.C. 20314-1000

Dear Mr. Lee:

Re: Passaic River Flood Control Tunnel Plan

The Township of Mahwah does not support the construction of a massive flood control tunnel, which would substantially drain the aquifers in northern New Jersey.

The channelization, floodwalls, and levees being planned to direct the water into the Morning Glory Inlet plus the frequency of use could severely effect ground water in our area on which all our residents are dependent. The environmental impact did not adequately address the issue of ground water drawdown nor how this water supply would be replaced should we suddenly find a drop in our static water levels.

Until we have hydrological proof that this tunnel project will not effect our aquifer, we will not support this project.

Very truly yours,

William Raquet
Mayor

WR/e

cc: Bixon
Grossman
West Milford
Ramsey
Oakland
Franklin Lakes
McDowell
Roukema
Bradley
Lautenberg

TOWNSHIP OF NUTLEY
DEPARTMENT OF PUBLIC WORKS
NUTLEY, NEW JERSEY 07110

PETER C. SCARPELLI
DIRECTOR

CARL J. ANLAS
MUNICIPAL ENGINEER

(201) 667-2800

March 6, 1990

FAX 202-226-0921
Congressman Nowak
Water Resource Subcommittee
House of Representatives
Public Works Commission
D 77
Washington, D.C.

Dear Congressman Nowak,

As an elected official in the Township of Nutley, I felt compelled to write to you on behalf of my constituents. We are represented by Congressman Roe, as you know he has supported the Passaic River Dual Inlet Flood Tunnel.

Although he is our representative in Congress, he has not represented our interests in regards to this project. The people in my township do not want this tunnel constructed no matter if the outlet is at the Nutley-Clifton border or extended to the Newark Bay. In either case we feel it will have a negative impact on our community. It is for this reason that I would like to expound upon my difference of opinion with Congressman Roe.

The recent approval by the Bush Administration's Office of Management and Budget to fund the Passaic River Dual Inlet Flood Tunnel is met with much dismay by those communities in the Passaic River's lower basin (Belleville, Lyndhurst, North Arlington, and Nutley.)

Beside the damage this $1 billion tunnel could impose on the lower basin communities. There has been no guarantee that it will provide the relief purported, as the Army Corps of Engineers have never constructed a tunnel on this grand scale before.

The communities in the lower basin have their own flood problems. They are not of the magnitude experienced upstream, but they do pose extreme drainage problems, especially when the Passaic River is at high tide. The Army Corps of Engineers have been unable to solve our problems, so it is with some skepticism that we view their solutions to a much graver situation.

Another factor involved in our opposition is the creation of 9 foot high cement walls to act as levies along the river on both sides. Not only would that eliminate a marina which is critical to emergency and rescue in Nutley, it would also destroy a beautiful park in Lyndhurst, which is situated along the banks.

There are other questions which the Army Corps of Engineers have never answered:

> Who is going to pay for the construction of the pumping stations needed to pump our storm drainage water over the nine foot levies constructed along the river?
>
> Who is gong to pay for the extra police personnel needed to re-route traffic while the Passaic River crossing bridges are raised to accommodate the increase in river elevation?
>
> What happens if the tunnel relieves the problems in Wayne and Lincoln Park, but creates unforeseen problems in Belleville, Clifton, Lyndhurst, North Arlington, and Nutley?

Calculate how many homes could be purchased if this $1,000,000,000 were used for a buyout of the homes in the most flood prone areas, most of which are not marketable with the present conditions.

We in the lower basin empathize with the people in the upper basin. We feel the best solution is a buyout program. We do not want a tunnel that may transfer the excess water, increase our flooding problems, and create construction and maintenance costs to our municipalities. The tunnel and this type of pork-barrel legislation is not the answer.

Commissioner Peter C. Scarpelli
Director, Department of Public Works
Nutley, NJ

BELLEVILLE

DEPARTMENT OF PARKS & PUBLIC PROPERTY
MUNICIPAL BUILDING
BELLEVILLE, NEW JERSEY 07109
450-3333

PARKS
RECREATION
PUBLIC BUILDINGS
MUNICIPAL STADIUM
UNION AVENUE HONOR ROLL
PUBLIC PARADES &
DEMONSTRATIONS

VINCENT J. FRANTANTONI
DIRECTOR

January 30, 1989

Mr. Let. Mon Lee
Headquarters
U.S. Army Corps of Engineers
Washington, D.C. 20314-1000

Dear Mr. Lee,

Re: Passaic River Tunnel Plan

The Township of Belleville is opposed to the Dual-Inlet Tunnel Plan for the Passaic River Basin.

Belleville, located in Essex County on the Lower Passaic River, has been a community dealing with growth and development since colonial days. We have been concerned with the degradation of the Passaic River, and wish to see it returned to its former recreational glory. Our high school maintains a rowing crew, and instead of seeing floodwalls and berms across the river from us we want to see a restoration of open space and parklands. We want this river to be used for regattas again.

Why should we have to suffer additional floodwaters because of overdevelopment in the Wayne area? Why should our citizens pay highter taxes because of something we in Belleville had nothing to do with? Why should Belleville be burdened wtih maintaining an altered waterfront because people upriver built in the wrong places?

The New York District Corps has not shown any concern for our quality of life. They see a big construction project for themselves, and in typical fashion want to push ahead. They have not followed the Congressional directive: they did not provide proper reasonable alternative, and you should not allow this bad project to be sent on to Congress.

Very truly yours,

Vincent J. Frantanton

Vincent J. Frantantoni
Commissioner

VJF:pv
CC: Parlavecchio
Payne
Roe
Enc.

Nutley Sun 3/1/90

Against tunnel

To the editor:

The recent approval by the Bush Administration's Office of Management and Budget to fund the Passaic River Dual Inlet Flood Tunnel should be met with much dismay by those in our community.

Beside the damage this $1 billion tunnel could impose on Nutley and the other lower basin communities, there has been no guarantee that it will provide the relief upstream as purported. The Army Corp of Engineers have never constructed a tunnel on so grand a scale before.

Nutley has flood problems of its own. They are not of the magnitude experienced upstream, but they do pose extreme drainage problems, especially when the Passaic River is at high tide. The Army Corps of Engineers has been unable to solve our problems, so it is with some skepticism that we view their solutions to a much graver situation.

Another factor involved in my opposition to the tunnel is the creation of 9 foot high cement walls to act as levies along the river on both sides. Not only would that eliminate a marina which is critical to emergency and rescue in Nutley, it would also destroy a beautiful park in Lyndhurst, which is situated along the banks.

There are other questions which the Army Corp of Engineers have never answered:

Who is going to pay for the construction of the pumping stations needed to pump our storm drainage water over the nine foot levies constructed along the river?

Who is going to pay for the extra police personnel needed to re-route traffic while the Passaic River crossing bridges are raised to accommodate the increase in river elevation?

What happens if the tunnel relieves the problems in Wayne and Lincoln Park, but creates unforeseen problems in Nutley?

Calculate how many homes could be purchased if this $1,000,000,000 were used for a buyout of the homes in the most flood prone areas, most of which are not marketable with the present conditions.

We do not want a tunnel that may transfer the excess water, increase our flooding problems, and create construction and maintenance costs to our municipality. I urge everyone to write to Congressman Roe, Senator Lautenberg and Senator Bradley urging them to fight against this project. The tunnel and this type of pork-barrel legislation is not the answer.

Commissioner Peter C. Scarpelli
Director, Department of Public Works, Nutley

THE ENVIRONMENTAL COMMISSION OF MILLBURN TOWNSHIP
COUNTY OF ESSEX, NEW JERSEY

OFFICE OF THE CHAIRMAN

TOWN HALL
MILLBURN, NEW JERSEY
07041

February 28, 1989

Mr. D. E. Lawhun, P. E.
Chief, Planning Division
Directorate of Civil Works
Headquarters
U. S. Army Corps of Engineers
Washington, D. C. 20314-1000

Dear Mr. Lawhun:

The purpose of this letter is to express our great concern that proper and adequate evidence has not yet been secured to assure that the proposed Passaic River flood control tunnel will not have an adverse affect on the recharge of the Buried Valley Aquifer Systems.

Water supply is certainly a critical element in the health and welfare of all of us in the area dependent on this sole source aquifer. Any threat to the ground water supply is reason enough to suspend any plans that may impinge on it.

Yours truly,

Elaine Becker

Elaine Becker
Chairman

bcc: H. Cannon

THE TOWNSHIP OF MILLBURN
MILLBURN, NEW JERSEY 07041

March 7, 1990

Honorable James Florio
State House
Trenton, New Jersey 08625

Dear Governor Florio:

Enclosed is a resolution of the Millburn Township Committee which expresses opposition to the proposed Passaic River Tunnel Plan. The Committee also urges that related ground water studies be completed and that a suggested buy-out/flood management plan be adopted and implemented.

Your attention to this concern will be appreciated. Thank you.

Sincerely,

Lynn Rogers-Eisenbeil

Lynn Rogers-Eisenbeil
Township Clerk

enclosure

c: Honorable William Bradley
Honorable Frank Lautenberg
Honorable Matthew J. Rinaldo
Honorable Maureen Ogden
Honorable Bob Franks
Honorable Donald T. DiFrancesco
Honorable William Reilly, EPA
Honorable Judith Yaskin, NJDEP

03069011

RESOLUTION TO OPPOSE PASSAIC RIVER TUNNEL PLAN

WHEREAS, the Central Passaic River Basin is subject to periodic, severe flooding with consequent damage to property; and

WHEREAS, to alleviate the flooding the Army Corps of Engineers has recommended the creation of an underground tunnel (the Tunnel Plan) to remove excess water from two critical flood areas and to drain it into Newark Bay; and

WHEREAS, the Tunnel Plan is based upon diverting all flood waters, even those occurring once a year, from an area which is considered to be a vital part of the Buried Valley Aquifer System; and

WHEREAS, the Buried Valley Aquifer System (a sole source aquifer) is recharged from flood waters in the Basin area and, then in turn, provides potable water to Millburn and many other communities; and

WHEREAS, a Buy-Out/Flood Management Plan has been proposed by the Passaic River Coalition as an effective and efficient means of achieving relief from flood damage in the Passaic River basin;

NOW, THEREFORE, BE IT RESOLVED by the Township Committee of the Township of Millburn, in the County of Essex, that it reiterates its October 6, 1987 opposition to the Tunnel Plan, and again urges the Federal and State governments to complete the ground water studies needed to assure that ground water supplies will not be harmed and to adopt and implement the Buy Out/Flood Management Plan; and

FURTHER RESOLVED that the Township Committee hereby requests New Jersey Governor James Florio, in demonstration of his record on environmental issues, to intercede in this issue and work to bring about an end to an already costly, ill-advised plan.

CERTIFICATION

I, LYNN ROGERS-EISENBEIL, Clerk of the Township of Millburn, in the County of Essex, do hereby certify that the foregoing is a true and correct copy of a resolution duly adopted by the Township Committee of said Township at a regular meeting held on the 6th day of March, 1990.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Township this 7th day of March, 1990.

Lynn Rogers-Eisenbeil

Lynn Rogers-Eisenbeil
Township Clerk

PASSAIC VALLEY GROUND WATER PROTECTION COMMITTEE
24E MADISONVILLE ROAD, BASKING RIDGE, NJ 07920 (201) 766-7550

MEMBERS

THE BOROUGHS OF:

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THE CITY OF:

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SOUTHEAST MORRIS
COUNTY MUNICIPAL
UTILITIES AUTHORITY

COMMONWEALTH
WATER COMPANY

PASSAIC RIVER
COALITION

ASSOCIATE MEMBERS:

Borough of:

Bernardsville
Ringwood

Township of:

Randolph
West Milford

February 10, 1989

Hon. Dean Gallo
House of Representatives
Washington, D.C.

Dear Congressman Gallo:

Re: Passaic River Flood Control Tunnel Plan

Enclosed is a copy of a letter we have sent to the Chief of Planning of the Corps of Engineers for Civil Works.

Every municipality in your district is dependent on groundwater for their water supply. The report in the Response Document compiled by the Corps by the New Jersey Geological Survey does not contain the technical information on which to make a professional judgment.

Our Committee has reviewed the documents prepared by the Corps and cannot feel secure with the assurances presented by the Corps that the Buried Valley Aquifer will not be effected by the draining of the system during small floods. Their statements are not backed up by comprehensive geohydrological models or data.

Certainly we sympathize with the flooding problems, but since Morris County is already in a deficit condition regarding water supply, can we afford to lose the capacity of the Buried Valley Aquifer of the Central Passaic Basin or of the Highlands Aquifer to the north? In previous correspondence you indicated that this issue would be resolved. When will that occur?

The tunnel plan is in conflict with water supply needs of northern New Jersey, and should be placed on hold. If a decision must be made regarding the safeguarding of our groundwater supplies and providing relief from flooding, groundwater preservation must take priority. The flood victims can and should be moved out of the flood plains.

We urge you to consider the consequences if the Corps has misjudged the impact of the Tunnel on this Aquifer system. After all, in 1976 they said with authority that it didn't even exist.

Very truly yours,

Herbert J. Cannon

Herbert J. Cannon, P.E.
Chairman

HJC/c

cc: Roe
Torricelli
Roukema
Bradley

PASSAIC RIVER

RESTORATION PROJECT

April 18, 1989

Hon. Maureen Ogden
Chairman, Committee on Energy and Natural Resources
266 Essex Street
Millburn, New Jersey 07041

Dear Assemblywoman Ogden:

Re: A. Res. 124, New Directions for the Army Corps on Passaic River Flood Control

The Passaic River Restoration Project is a unique, dynamic program to restore the urban waterfront in the Lower Passaic River Basin begun in 1980.

Our active members include appointed municipal representatives and citizen leaders from: Harrison, Kearny, North Arlington, Lyndhurst, Rutherford, East Rutherford, Wallington, Garfield, Passaic (City of), Clifton, Nutley, Belleville, and Newark. Currently, all municipalities on the eastbank and the City of Newark are in the process of implementing an aggressive project which will provide greater access to the Passaic River. Commercial and private developers are cooperating in this endeavor also. Ultimately, a considerable Green Belt will exist on this waterfront, fulfilling a deficit in open space and recreation which has occurred because of years of neglect.

From Harrison to Garfield, every town has at least one project in which it is investing substantial funds to meet the needs of its citizens and to eliminate blight. All of these towns have over the years addressed their drainage problems so that flooding in not a major problem in the Lower Valley, a statement attested to in the Army Corps final environmental impact statement.

Now we who are working to improve the Passaic River are being asked to allow the degradation of our waterfront for houses built in the floodway and flood plains of municipalities, which will further gain great increases in land values. The tunnel will devalue our properties and deny us access to a river, whose recreational potential is again being realized.

The first invitational rowing meet this past week, hosted by Kearny High School, brought to the Passaic River over 16 other schools in competition. As a result of our restoration project, other schools in the area are planning to add rowing to their curricula. At the present time, Kearny, Belleville, and Nutley have men's and women's crew teams.

Our restoration project has brought together the municipalities in an effort to move forward in cleaning up the Passaic. Collectively, the municipalities of the Lower Passaic stand together in opposition to the tunnel plan.

We support A. Res. 124, and urge you to do everything you can to stop the tunnel plan with all of its negative impacts on our Lower Passaic River Valley.

Very truly yours,

Robert J. Myers
Chairman,
Passaic River Restoration Project

RM/s

cc: Kyrillos
LoBiondo
Kronick
Villapiano
PRRP Committee

Nutley
Concerned Citizens

February 4, 1989

Richard Darman, Director
Office of Management and Budget
Executive Office Building
725 17th Street NW
Washington, D.C. 20503

Dear Mr. Darman:

In the spring of 1984, the Army Corps of Engineers introduced the Pompton-Passaic Dual Inlet Tunnel Diversion Plan. Its purpose is to divert flood waters from the Central Passaic River Basin to the Lower Passaic River Basin. These flood waters would exit the tunnel into the Third River at the Nutley/Clifton border. Nutley Concerned Citizens have been involved in every aspect of this project since its inception so we could assess the impact upon our community. After five years of intensive work, we have reached the conclusion that this tunnel project would have a negative effect on the communities of the Lower Passaic River Basin economically and environmentally.

The cost of the flood tunnel project was estimated at $814 million in 1986. In 1987, the estimated cost had risen to $1 billion. The Army Corps of Engineers has projected the annual cost for maintaining the tunnel will be $83 million, included in this will be operation, maintenance, replacement charges, residual damages associated with the operation of the tunnels and amortization and interest during construction. Since this project is still being studied, the final costs will be greatly escalated.

On September 14, 1988, Dr. Ella Filippone Executive Administrator of the Passaic River Coalition introduced an alternative plan to the flood tunnel - a progressive buy out of flood prone residential properties beginning with the homes most at risk. Contrary to the Army Corps of Engineers' figures, the Passaic River Coalition buy out program is both economically and environmentally efficient. Once the properties are purchased, they would become open space forever with no future financial obligations. Nutley Concerned Citizens supports this plan and feels if given a fair review the buy out is the best solution for the Central and Lower Passaic River Basins.

P.O. Box 731
Nutley, NJ 07110

According to Samuel Tosi deputy district engineer for the Army Corps of Engineers, more than $11 million has already been spent researching the flood tunnel project. This year the Corps is asking for another $3.7 million. Nutley Concerned Citizens, Inc. asks that you cut our losses now and deny the Army Corps of Engineers' request for additional flood tunnel funding.

With concern over rising deficits in government (Federal, State, County and Municipal), expensive projects such as the flood tunnel concept which will not solve New Jersey 's flood control problem; but divert it to another area, is not in our opinion the most efficient use of tax dollars.

Respectfully,

Nutley Concerned Citizens, Inc.
Executive Committee

Enclosures

Dorothy Ciullo Baker. V. President

ACCORD

Associated Concerned Citizens of Rutherford
P. O. Box 318
Rutherford, New Jersey 07070

January 18, 1989

Honorable Thomas H.Kean
The State House
Trenton, New Jersey 08625

Dear Governor Kean:

ACCORD (Associated Concerned Citizens of Rutherford) joins the Passaic River Coalition in expressing our opposition to the proposed Army Corp of Engineers' Tunnel Plan.

It is the belief of our organization, as well as many of our fellow residents, that this tunnel plan will have a deleterious effect and negative impact on our community. We strongly urge your support of the Passaic River Coalition proposal.

ACCORD is taking the liberty of enclosing signatures collected by petition from residents in our community and surrounding towns for your examination.

While we understand and sympathize with the citizens of Wayne, ACCORD must convey to you by way of these petitions our sentiment against the Army Corp tunnel plan.

We are concerned and ask your cooperation in addressing the issue of buy-out of homes in the flood plain as proposed by the Passaic River Coalition.

Thank you for your attention to this request and for your consideration.

Very truly yours,

ACCORD
(Associated Concerned
Citizens of Rutherford)

Louise Doren
Corresponding Secretary

ld/ms
cc: Passaic River Coalition ✓

MEADOWLANDS
BOARD OF REALTORS

Meadowlands Board of Realtors

97 Chestnut Street • Rutherford, New Jersey 07070
(201) 933-6868

March 15, 1988

Governor, Thomas Kean
401 East State Street
State House
Trenton, NJ 08601

Re: RESOLUTION of the Meadowlands Board Of Realtors

WHEREAS, the minicipalities located on the Lower Passaic River have actively supported and funded improvements along the Passaic River Waterfront, and

WHEREAS, these waterfront improvements will increase access and use of the Passaic River which in turn will lead to increased economic growth and improved quality of life, and

WHEREAS, the U.S. Army Corps of Engineers proposed Tunnel Plan for the Passaic River Basin calls for the construction of floodwalls and levees reaching nine to twelve feet in height which will negatively impact local real estate values due to the elimination of river views, access and use, and

WHEREAS, the construction of the tunnel will further cause economic disruption and depressed real estate values through the degrading of both water and air quality,

NOW THEREFORE BE IT RESOLVED that we, the Meadowlands Board of Realtors oppose the construction of the proposed tunnel, and

BE IT FURTHER RESOLVED that we urge the U.S. Army Corps of Engineers to seek other alternatives to flood control in the Passaic River Basin.

Sincerely,

Harvey W Young

Harvey W. Young
President, Meadowlands Board Of Realtors

cc: Ella F. Filippone, Ph.D.

njas
new jersey audubon society
P.O. BOX 693 • 11 HARDSCRABBLE RD. • BERNARDSVILLE, NJ 07924 • (201) 766-5787

Feb. 10, 1989

Mr. Let Mon Lee
Office of the Secretary of the Army
Headquarters, US Army Corps of Engineers
Washington, DC 20314-1000

Dear Mr. Lee:

New Jersey Audubon Society is a non-profit, statewide conservation organization with 10,000 members in New Jersey. We wish to comment on the Passaic River tunnel plan proposed as a solution to flooding in the Passaic River Basin of New Jersey.

New Jersey Audubon Society objects to the tunnel project for a number of reasons. We believe it will interfere with natural acquifer recharge processes by channeling water too rapidly down stream. It will export the high water problem down stream to the lower Passaic communities and interefere with river access and parks on the lower river. It will not correct the original problem-namely that too many structures and too many impervious surfaces were placed too close to the rivers. We believe that the buy-out route is the fiscally wiser and environmentally safer course. The tunnel diversion will also result in further wetland loss. The conservation of wetlands is still the best flood control method available, apartfrom the obvious benefits to wildlife. Conservation of wetlands coupled with a fair buyout plan would alleviate the flooding problem without creating new and costly problems of maintenance and mitigation.

Sincerely,
Richard P. Kane
Richard P. Kane
Director of Conservation
New Jersey Audubon Society

cc: Tom Gilmore, Exec. Dir., NJAS
Richard Darman, Dir., OMB

~~Lso~~
file

New Jersey Conservation Foundation
300 Mendham Road
Morristown NJ 07960
201-539-7540

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EXECUTIVE DIRECTOR
David F. Moore

March 10, 1988

The Honorable Thomas H. Kean
Governor of the State of New Jersey
CN-001
Trenton, New Jersey 08625

Dear Governor Kean:

For your information we enclose a copy of comments, which we submitted to the Corps of Engineers concerning current plans to control flooding within the Passaic River Basin.

In summary, we do not feel that the flood-water diversion tunnel contained in those plans is the most appropriate response to the problem. We would favor a plan which stresses removal of people and structures from the path of flood-waters, rather than the current plan which seeks to dramatically change the hydrologic cycle through extraordinary engineering measures. Since the forces of nature will ultimately prevail, it would serve us well to work with them from the start.

Very truly yours,

Thomas Wells

Thomas Wells
Assistant Director

Enclosure

TW/tcc

STARR

Suburban Town
Association for Responsible Redevelopment

P.O. Box 264, Rochelle Park, New Jersey 07662

August 22, 1989

U.S. Senator Frank Lautenberg
Hart Senate Office Building, Room 717
Washington, D.C. 20510-3002

Dear Senator Lautenberg,

This is to repeat our opposition to the appropriation of further funds for the Passaic River Tunnel.

We believe this to be dangerous to the lower Passaic River Basin communities, and an intolerable burden on taxpayers throughout the state. It encourages people to continue development out to the edges of the waterway instead of preserving the floodplain and keeping our river clean and beautiful.

We support the position of the Passaic River Coalition, that a Federal buyout of homeowners in the areas which flood would be more effective in helping those citizens and in protecting New Jersey's already overburdened and abused environment.

We further believe that some realistic level of help should be offered to businesses which were established in flood-prone areas before Federal mapping was begun. However, those who knowingly established themselves in such areas in the expectation that the Federal Government would bail them out, were making a business judgement and taking a business risk for which no dollar-for-dollar, taxpayer financed, compensation is justified.

Sincerely,

Phyllis A. Strohmeyer and
the members of STARR

GREAT SWAMP WATERSHED ASSOCIATION
P.O. Box 300
New Vernon, New Jersey 07976

May 28, 1987

Colonel Marion L. Caldwell
Corps of Engineers, New York District
26 Federal Plaza
New York, New York 10278

Re: Draft Environmental Impact Statement
Passaic River Flood Plan

Dear Colonel Caldwell:

The Great Swamp Watershed Association is a non-profit citizen's organization committed to protection and conservation of water resources. The watershed is located in the Upper Passaic River Basin, covers 55 square miles, and includes the Great Swamp, a large part of which is protected as a national wildlife refuge.

The Upper Passaic River was excluded from the flood plan because it contains one of the Passaic Basin's largest natural floodwater storage areas - the Great Swamp - and has only experienced moderate flooding and low flood damages. It is a case study attesting to the efficacy of non-structural flood control.

Extension of comment period
Because the Main Report and the Draft Environmental Impact Statement was made available to the public only in early May, our Association requests that the public comment period be extended beyond May 31, 1987 to insure adequate time for study and analysis by the public. The complexity of the plan, as well as the substantial public investment required dictate that sufficient time be allowed the public for meaningful participation.

Failure to comply with Congressional guidance
Our preliminary examination of the proposed Federal flood control plan raises many questions about its feasibility. The Association's primary concern is that the Army Corps' preferred alternative has focussed on expensive structural solutions to the flooding problem at the expense of a wholistic evaluation of solutions that would address the total water resource cycle including water supply and water quality. The preferred plan, therefore, fails to comply with congressional guidance as set forth on page 14 of the Main Report.

Alternatives considered
The draft Environmental Impact Statement does not examine an alternative that would largely eliminate the need for structural remedies. Our Association recommends exhaustive investigation of an alternative that would include:

- buyout and relocation of flood victims, as authorized under the Water Resources Development Act of 1986.

- restoration of the integrity of the flood plain and wetlands of the central Passaic,
- preservation of all wetlands of the Central Passaic Basin,
- land use restrictions regarding storm water management.

Preferred Alternative

The dual tunnel plan does not appear to address adequately the list of problems and opportunities shown on page 11 of the EIS. Specific concerns are listed below:

- Drinking Water supply
  There is no analysis of the long-term impact on water supply. With the outright loss of 1,535.9 acres of wetlands (U.S. Fish & Wildlife Service estimate), and the lower water levels of the river, lower groundwater levels could result in reduced water supply for northern New Jersey.
- Fish and Wildlife resources would be destroyed
- Proposed hydro-power generation will be negatively impacted by lower flows.
- A substantial acreage of wetlands will be lost or altered.
- Surface and groundwater quality will be reduced because of reduced flows and reduced acreage of wetlands
- Instead of providing additional outdoor recreational opportunities and open space, the dikes and levees will allow only limited access and will destroy already protected open space.

Future maintenance and operation of the tunnels is assigned to the local sponsor - N.J. DEP. Comprehensive analysis of the NJ DEP's ability to maintain and operate the tunnels is essential. At this time, N.J. DEP is even having difficulty with budget approvals for current department needs.

No plans are provided in the event of malfunction or failure of the tunnels

Testimony by a geologist at the Public Hearing in May concerning the existence of "melt" zones in the area of the tunnel indicates more thorough geological investigation is needed.

Recommendation

The Great Swamp Watershed Association is opposed to the proposed dual tunnel inlet plan because of the concerns and inadequacies listed above. The Association recommends a thorough investigation of a flood control alternative that minimizes structural solutions and stresses use of natural flood control systems as well as strict land-use control. Such an alternative should prove to reduce the total cost of flood control by eliminating the need for expensive maintenance and operation of tunnels and other structures in the future. The Association is not convinced that the tunnel plan will in fact "solve" the Passaic Basin flooding problems without creating long-term degradation and loss of water resources in the Passaic Basin.

Sincerely,

Paul B. Wehn

Paul B. Wehn
Secretary/Treasurer

cc: Christopher Daggett, US EPA
Richard Dewling, NJ DEP
Michael Chezik, U.S. Fish and Wildlife Service
Senator Frank Lautenberg
Senator Bill Bradley
Congressman James Courter
Senator John Dorsey
Senator John Ewing
Senator Leanna Brown
Assemblyman Rodney Frelinghuysen
Assemblyman Art Albohn
Assemblyman Ralph Loveys
Assemblyman Robert Martin

AAUW
American Association of University Women

Mr. Robert L. Callegari, Chief
Passaic River Basin and Special Studies Branch
U. S. Army Corps of Engineers,Department of the Army
New York District, Corps of Engineers
26 Federal Plaza, New York, N.J. 1027

May 27, 1987

Re: Draft Flood Protection Feasibility Report and Draft Environmental Impact Statement (DEIS) for the Main Stem Passaic River known as The Pompton/ Passaic Dual Inlet Tunnel Diversion Project for inclusion in the record of public hearings held at Little Falls, N.J. May 12, 1987. Submitted by Betty A. Little, Environmental Advisor, New Jersey Division American Association of University Women, 11 Berta Pl. Basking Ridge, N.J. 07920.

Since 1969, I have represented the New Jersey Division of the American Association of University Women in hearings concerning Corps of Army Engineers Flood Control Planning for the the Passaic River. The N.J. Division of the American Association of University Women has nearly 6,000 members and we work with the New Jersey Women's Environmental Consortium which provides leadership for women's groups with a membership over over 20,000. I am an economist/educator with eighteen years experience in water quality managment and public health and a PhD. candidate in Government and Environmental Ethics, Walden University, Minneapolis, MN.

In September 1976, hearings were held before the House Public Works Committee, an hour of argument was presented concerning Plan II-B. I want to remind you that that plan had the strong support of the Governor of New Jersey, the Commissioner of Environmental Protection and many of the most powerful members of the New Jersey Congressional Delegation. The most powerful people in government supported Plan II-B. During that hearing I presented testimony based on "An Environmental Quality Survey in the Central Passaic River Basin" funded in part by the AAUW Educational Foundation, Washington, D. C. and supported by nineteen branches of the N.J. Division of AAUW. In this opinion survey of 700 governmental, business and civic leaders respondents had registered a strong negative attitude towards the plan and towards the Corps. They wanted to redirect flood plains to protect and utilize the natural environment for flood control and for water resource and open space benefits.

At the close of that hearing Congressman Roberts of Texas, chairman of the committee said that if the people of New Jersey wanted flood control they should work together to establish guidelines for a plan.

Delegates from Essex and Morris Counties, Livingston, Montville, Wayne , the Passaic River Coalition and civic organizations such as the American Association of University Women participated in a meeting in Washington, D.C. following the hearing. This meeting, in which I participated, was chaired by Congressman Robert Roe and the only agreement that was reached at that time was to convene again in New Jersey. That second meeting was held a few days later in the Raymond Building in Newark, N.J. and was chaired by Betty Wilson, former Deputy Commissioner of the NJ Department of Environmental Protection. At this meeting a Consensus Statement was developed, now known as the 'Guidance Document.' Based on my survey, and the positions taken previously by the New Jersey Division of the American Association of University Women, I insisted that future planning be carried out under the National Environmental Policy Act of 1969 and the Clean Water Act of 1972. Everyone present supported that request.

In addition, the Corps was given seven directives to consider in future planning. The requirements to follow the environmental laws and the seven directive together with the guideline principle that this should be a water resources management plan make up the 'Guidance Document' which appeared in HR94-1702 and was adopted by Congress through the efforts of the late-Senator Clifford P. Case of New Jersey. A copy of page 16, which contains both the mandate for a water resource management and flood control plan and for the seven acceptable alternatives or combinations, is attached. In discussing these directive the delegates to this meeting discussed the use of law as a requirement for implementing any plan. For example New Jersey wetlands legislation might be consider a prerequisite for federal funding of structure flood controls. We recognized that unless preventive measures were taken walls and tunnels would have to be rebuilt to accommodated additional flooding---the problem would simply continue to get worse. There would be no solution unless both remedial and preventive measures worked together.

[It was necessary to be very specific about the inclusion of the two environmental laws because the corps plans dated back to 1936 and they could have been allowed to proceed without compliance]

The 'Guidance Document' is historic. For the first time, both those who favored Corps plans and those who opposed them came to agreement on a single set of acceptable guidelines for planning.

The delegates to this meeting have never been called together again to review the planning and verify that the guidelines were in fact followed. However, it is my conclusion as a participant in, and witness to, history that neither the guidelines nor the Congressional manadate has been met.

As frequently happens when an agency carries out a legislative mandate the goals become separated from the strategies. The strategies then become subject to the mission of the agency. Only through the public hearing process. the media and the reentry of the legislators can the planning process be reoriented.

Since 1936, when the Corps first began its flood control planning for the Passaic River we have had controversy. For the first time, in 1976, there was hope of resolving that controversy but this current plan looks no better than the earlier one.

This was to have been a water resource management and flood control plan. All delegates to the 'guidance document' meeting strongly supported the first directive to study 'A Full range of non-structural flood control alternatives to include land acquisition...' (attachment 1). The purpose here was to remove homes from the flood area...forever. This means of flood protection is well understood by the general public as an immediate and permanent way of providing protection. 'Take people out of the flooded area and don't let others build in it' is repeated over and over and over again at every public hearing. There is nothing in this plan which addresses this solution.

At the time the 'guidance document' was developed, the Clean Water Act strategies were being formulated. It was the expectation of the delegates that water quality and quantity would be important. Since that time we have suffered from drought and even in a good summer may find water in short supply. A water resource management plan would have considered water as a valuable resource to be conserved and not as flood water to be sent through a tunnel and out of the basin and New Jersey. It does not make sense to be building reservoirs on the one hand and flushing flood waters out on the other. If a water resource management plan had been followed, directives 5,6,7 (attachment 1) would have been included in the plan. They were not.

What do we have then. This is not plan Plan II-B it is something else. It is a tunnel and extensive superstructure. Neither the tunnel nor the channeling and diking meet the requirements of the National Environmental Policy Act that 'man and nature live in productive harmony'. If the Pompton/Passaic Dual Inlet Tunnel Diversion Project is carried out no natural environment will be left. It is a plan which protects additional land for development. There is nothing in the 'Guidance Document' that directs the Corps to protect land for development. Why is this plan contrary to the Congressional Mandate?

The United States Constitution is not a single document but many. The Constitution itself, the Amendments to it, the federalist papers and all the court cases since that time. In developing a flood plan for the Passaic you can not ignore the context of history. Documents regarding planning and the record of public hearings and social conflict are important. The single most important document is the 'Guidance Document'. The single most important phrase in that document is water resource management. Neither in operating the United States government nor in developing and implementing flood plans for the Passiac River can you ignore that this government---federal state and local is fundamentally responsible to the people. "We the people" must be satisfied that this plan is in our best interests. The cost alone both capital and operating raises the question of whether or not there are better projects on which to spend our limited resources.

The Plan further ignores the substantial efforts of low and moderate income communities downstream to restore their environment through a series of linked parks in a Restoration Project. The restoration project calls for preservation of important historic and cultural areas and some balance between man and nature in an urban setting. The Restoration Project follows the objectives of the National Environmental Policy Act. The Corps' plan is complete insensitivity to these and other values expressed in section 101(b)1-6 of NEPA (attachment 1I).

It was the intent of those who developed the 'Guidance Document' to protection water resources for this and future generations through a water resource management program. Why is it then the Corps places environment fourth in its concerns. Why must we look to a private association, the Passaic River Coalition for a Natural Resource Plan that places the environment first. That was the intent of the people, that was the reason for including environmental laws, that is why the 'guidance document' was written. Developing an environmental impact statement and showing plans to the Council on Environmental Quality which has only advisory authority is superficial. It is to go through the motions and ignore the spirit of the National Environmental Policy Act.

As Education Director, later as Public Information Office and currently as a member of Board of Directors of the Passaic River Coalition I have a great familiarity with the problems of this area . The public has a strong interest in maintaining the natural environment and improving the physical surrounding. Will it be necessary to energize that concern again and go back to Congress to defeat yet another plan?. Is there no way in which we can direct this agency so it will work with the people instead of against them?

The new concern, nationally and worldwide, for the environment means that a stronger public consensus is emerging. The Pompton/Passaic Dual Inlet Tunnel Diversion Project as it is now designed is totally out of step with the socio-economic tempo of the times.

What is sad is that people are flooded from causes not of their own making. They need help. But this social objective has been entirely lost in developing tunnels and all this superstructure. Attach.2. 11 Berta Pl.,Basking Ridge NJ07920

Fyke Nature Association, Inc.
Ramsey, New Jersey

208 Anderson St
8E-S
Hackensack NJ 07601

June 10, 1987

Col Marion Caldwell
District Engineer
US Army Corps of Engineers
New York District
26 Federal Plaza
New York NY 10278

Dear Col Caldwell:

Regarding the Draft Flood Protection Feasibility Report and Draft Environmental Statement for the Main Stem Passaic River prepared for your office, I offer comments on behalf of Fyke Nature Association.

Fyke Nature Association has reviewed remarks made by Dr Ella Filippone of The Passaic River Coalition, Basking Ridge, at a May 12 public hearing on this report concerning the flood water tunnel.

We agree strongly with Dr Filippone's remarks, and believe they represent the opinions of Fyke officers and members and of many concerned citizens of New Jersey.

In particular, we urge that the Corps recognize the the value of watershed regions in the affected area, as noted in Point #18 of Dr Filippone's testimony. By identifying such lands as crucial to the control of water flow, the need to preserve them in their natural state will be emphasized. The steep slopes and poor soils of this area, commonly known as the Highlands, cannot accomodate future development without threatening to flood lower areas.

Therefore, we urge that the Corps recognize that preservation of these lands is essential for the success of the overall plan. Thank you.

Sincerely,

John Baranowski

John Baranowski
Vice President and Conservation Committee Chairman

cc: Passaic River Coalition.

Mr. NOWAK. We would now like to bring before us our own colleagues who have been waiting since this morning and have agreed to wait to appear at this time, Congressman Robert Torricelli, from New Jersey, and Congressman Dean Gallo, if they would like to sit at the witness table, and we will incorporate your statements as well into the record and ask you to proceed as you so desire.

Congressman Torricelli?

TESTIMONY OF HON. ROBERT TORRICELLI, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY; AND HON. DEAN A. GALLO, A REPRESENTATIVE IN CONGRESS FROM NEW JERSEY

Mr. TORRICELLI. Thank you, Mr. Chairman.

Mr. Chairman, thank you very much for this opportunity. Let me in advance, I will try to keep this opening brief, pay my compliments to Ella Filippone.

Let me say at the outset, Mr. Chairman, before proceeding that the considerable progress that has been made along the Passaic River in making it a better place and the proximity to the communities that I represent in some measure would not have been possible without her diligence, her belief in the river, and her commitment.

I would like, if I could, and, Mr. Chairman, this morning I have a rather statement, if I could submit it for the record and summarize it at this point?

Mr. NOWAK. Without objection, so ordered.

Mr. TORRICELLI. Mr. Chairman, I wish today to address briefly three issues. The first, and paramount, is the one that has occupied the time of this committee thus far this morning.

It is the question of the tunnel to bring waters of the Passaic River from flood areas to the Lower Passaic River, as now proposed by the Army Corps of Engineers, and the variant that Mr. Gallo and Mr. Roe and I have been proposing.

Let me say, Mr. Chairman, at the outset that what we have here are two legitimate interests set against a background of irresponsibility.

Many years ago, Mr. Chairman, the tragedy that is now unfolding was set in motion. In the years after the last war, flood plains, wetlands, areas that nature intended to have water absorbing capability, were turned into homes, shopping centers, factories and offices.

We are now reaping the dividends of those unfortunate policies. Indeed, as has been pointed out thus far, what you are facing today can be characterized as the second worst flooding potential in the entire Nation.

It has caused indeed millions of dollars of damage in the past and indeed cost human lives. The potential again of a flood along the terms of the 1903 deluge would estimate approximately $2 billion worth of damage.

This is no small area, no back order of a little town with a slight flooding difficulty. This is over 10 percent of the geographic area of the State of New Jersey, encompassing the lives of two and a half million people, with 112 municipalities and 50,000 individual residences and businesses.

This is a major national problem. On the other side of this, Mr. Chairman, our older communities in the Lower Passaic River developed many years ago have been reclaimed after years of battle the Passaic River.

The other side of this issue, Mr. Chairman, is that only a few years ago the Passaic River was noted for being perhaps the most polluted river in the United States of America.

Years later, it is being reclaimed. Through the efforts of this committee and others, acreage has been purchased along its banks, what was once desolate, abandoned, polluted property is now park lands used extensively by all of these communities for recreation.

The Passaic River itself, which no parent would have dared to have their child approach only a decade ago, today is again being used for recreational purposes, and access to it is important.

These are the two stories, Mr. Chairman. People living understandably in the fear of severe threats of flooding which could take their lives and destroy their property, and constituents that I represent wanting to reclaim the river for recreational and environmental purposes.

The question is can they be balanced? I believe, Mr. Chairman, that they can be balanced. Mr. Roe has suggested by making the investment of moving the outlet of the tunnel to Newark Bay, protection can be afforded to those people who, through no fault of their own, live in areas that were once wetlands designed by nature to prevent flooding and are now the cause of it.

At the same time, my constituents cannot have 13 or 10 foot levees and earthen dikes placed in their communities with the loss of federally purchased park lands and the loss of river quality.

That is the balance. If I could, Mr. Chairman, just suggest to you, and for a moment illustrate what it is for those of you who have not spent much of your lives in Bergen and Passaic Counties, New Jersey, but to those of us that live there it is clear.

This, Mr. Chairman, is the Passaic River. It runs through America's first industrial heartlands in Paterson. This is where the Industrial Revolution began.

In the years after the war, extensive housing and residential and business construction took place in Wayne and surrounding communities, and indeed in northern Bergen County, where I lived with my family.

This then from being rural, in a single generation, was made high density suburban. Other rivers, as you can see, flow in, the Ramapo River in Bergen County, a concern of mine, and the Passaic River, all feeding into the same flood area.

That runoff all goes in this narrow Passaic River Basic to the communities I now represent in southern Bergen County. This is where the current flood tunnel would exit along the Passaic River.

These are fully developed communities today, Mr. Chairman, settled a generation before. There is not area here for the river to turn over its banks.

It would directly go into established communities and destroy housing and these established towns. Therefore, the Army Corps is proposing to put earthen dikes along the river, levees on park lands, that this Congress has appropriated money to purchase, to destroy the only open territory in these towns.

I make this proposal, therefore, along with my colleagues, under the leadership of Mr. Roe, who very thoughtfully has conducted its design, but with these clear conditions.

If there is to be any flood tunnel at all, first it must go to Newark Bay to avoid this destruction of park lands. Second, it must be demonstrated on sound engineering that there is no reliance on any levees, any dikes, any dams, with no net loss of any park lands.

Mr. Chairman, I want to see a responsible conclusion to this problem. I have lived with it as a resident of these communities all of my life, it is an annual rite of spring that there be flooding in the Ramapo and Passaic Rivers, but I cannot responsibly allow now for it to simply be transferred to the Lower Passaic River.

If we spend a billion dollars with the only result that we have transferred flooding from the Upper Passaic to the Lower Passaic, then we will have done something worse than nothing at all.

I believe that this proposal for the extension avoids that problem, and I believe, Mr. Chairman, it is consistent with the authorization study done, mandated by this Congress in 1976, when the corps was asked to pursue not only the most cost effective plan, which they have produced, but also the option that would produce the least amount of community friction and the fewest levees and dikes.

Clearly, Mr. Chairman, by the presence of many of my constituents on both sides of this issue, and by the description that I have offered, the corps has not met that mandate.

This is not my idea of the least amount of community friction, nor the least possible amount of destruction of park lands due to levees.

Briefly, if I could, then, Mr. Chairman, in conclusion, I would also like to simply make note of two other problems that I'd ask the committee to take note of.

First, in the Lower Passaic River, there is another problem, barges that remain abandoned for decades that are a major source of pollution remaining in the Passaic River, obstructions to navigation, and denying the use of the river for recreational purposes.

Aside from the flood tunnel problem, this problem remains. I bring it to you because the Army Corps of Engineers today has authorization to remove these pilings and barges from the Hudson River; they claim that they do not today with the Lower Passaic River, although it is part of the same recreational and water system.

I'm going to ask the committee to allow the Army Corps to be authorized to remove these last obstacles in the region for recreational purposes.

Finally, one other flooding problem that has received much less attention but is also extremely important, Mr. Chairman.

Also in this basin is the Hackensack River, which flows through the middle of Hackensack. This committee was kind enough and thoughtful enough, in my judgment, a year ago to authorize a study to eliminate flooding along the Hackensack River.

Today, unbelievably, in the county seat of Bergen County of a million people, some of the most valuable real estate in the county cannot be used, Government and private workers cannot leave this city at high tide, if there is a slight rain.

The principal roads are flooded and are obstructed. Not minor roads, not some rural path, but in a major city in the State of New Jersey, in the county seat, you cannot leave at high tide if there is any precipitation whatsoever.

The previous study was not successful, Mr. Chairman, because we had looked for a flood return barrier further down the river, and it could not be justified on the cost benefit basis.

The Army Corps is planning to proceed with State funds this year a $70,000 study to see whether or not we should go for a reconnaissance study next year to build a flood return barrier here at the Route 46 bridge, which would protect the city of Hackensack at minimal costs.

I am simply bringing it to the attention of the committee because my hope is that the State of New Jersey will conduct a study this year and that next year, with funds already authorized from last year, we can proceed with a federal study and return to this committee with an engineering answer at the lowest cost possible to again allow commerce to be conducted in our county seat of Hackensack on the best basis possible.

I thank the Chairman and the members of the committee for their indulgence and for their interest. This is, in each of these issues, a paramount importance for us, obviously, the greatest interest in the Passaic River tunnel.

I believe the committee can find a balanced way to meet these needs to preserve the Lower Passaic, the environmental progress we've made, while providing protection to those who unfortunately find themselves living in flood prone areas.

Thank you, Mr. Chairman.

Mr. **Nowak**. Thank you very much, Congressman Torricelli.

Now, before we get into some questions, let's turn to Congressman Gallo, a member of this committee.

Mr. **Gallo**. Thank you very much, Mr. Chairman.

I also have lengthy testimony that I've submitted and would ask that that become part of the record.

Mr. **Nowak**. Without objection, so ordered.

Mr. **Gallo**. Mr. Chairman, I would like to thank you for this time today allowing me to speak about the critical importance of the Passaic River Dual Inlet Tunnel Diversion Project which is designed to end the devastation caused by flooding in the Passaic River Basin of New Jersey.

I would also like to thank my fellow colleagues from New Jersey, Congressman Bob Roe and Congressman Bob Torricelli, for their continued support and efforts on this important project.

I would also like to commend the Bush Administration for the recommendations and the endorsement that this $879 million project be given top priority, and I urge the members of this subcommittee to make it a major part in the Water Resources Development Act of 1990.

As a former member of the Public Works and Transportation Committee, I would like to share with you some of the history of the problems and to lend my support to the project that could very well be our last and only hope for a solution.

Keep in mind, I've been involved in this problem since 1967, along with my colleague, Bob Roe, and many of the citizens here.

The Passaic River Basin has been recognized as having one of the most serious flooding problems on the East Coast. The basin contains some of the most developed metropolitan land in the country.

Its heavy residential and industrial growth and its location in the East Coast's storm belt has led to a history of severe hardship during flooding.

Since records have been kept, there have been 19 major floods in the Passaic River Basin. The Lower Basin has been declared a federal disaster area seven times in the last 20 years.

You only have to look at the flood of 1984 to understand the devastation that takes place in the basin. The 1984 flood damaged some 6,400 properties, at a loss of $355 million.

Homes were under nine feet of water, more than 9,000 people were evacuated, four lives were lost, and nearly 4,000 homes suffered a long term loss of utility service.

Since that flood, we have redoubled our efforts to begin the construction of the tunnel project and to protect the public health and safety of residents.

I am satisfied that the Army Corps has chosen the only viable solution. The State of New Jersey has been directly involved in the planning of this project, and in 1984 endorsed the selection of this proposal.

The comprehensive Passaic River Tunnel Project, including the preservation of 5,350 acres of wetland and 5.9 miles of channel modification, incorporates a state-of-the-art concept, the construction of a 13.5 mile underground water diversion tunnel and a 1.2 mile spur tunnel.

In Rochester, New York, this concept is currently being used to complete a flood tunnel project there. In addition, the flood control plan, including the tunnel construction, has the support of most of the residents in the Passaic River Basin who have seen what this river can do and want to prevent the devastation that is possible in the future.

Today, you may hear from individuals that oppose the Passaic River Tunnel Project and instead favor a partial buy-out alternative.

They are suggesting that we compare apples to oranges. We are not just talking about single family houses that would have to be bought out and relocated.

As Congressman Roe has indicated, this area also includes numerous commercial and industrial and public facilities. Some of the houses and owners have been in this area for over 60 years, and they would find it very difficult to leave their homes, communities, families and jobs.

Moreover, because of the large amount of land affected by the flooding and the high cost of real estate in northern New Jersey, such an alternative would prove to be more expensive than the recommended plan.

A flood plain buy-out plan providing the same amount of protection would cost in excess of $4.2 billion, far more than the Army's plan.

Most of the remaining concerns with the construction involve deciding where the diversion would end. There are some Government officials who oppose the project solely because of the placement of the terminus.

For the record, I wish to once again state my commitment to moving the terminus point to Newark Bay. I believe that this is the best way to address the remaining concerns and to attract additional support for this critical project.

Basically, the project is a good solution, and I urge my colleagues on the subcommittee to authorize it. The time has come to stand firm on solving and addressing the urgent needs for flood control in the Passaic River Basin.

Let me just say that I've witnessed some of those floods firsthand, sometimes on land, sometimes in the air by way of a helicopter, and when you see the devastation that takes place where all you'll see is a chimney of a home, where actual lives have been lost as a result of a person going outside their back door and being swept away in a raging river, those are the things that I believe really impact what's happening.

When you go to sleep at night and it's a forecast for rain, are you going to wake up with your living room literally flooded?

Right now, minor rainfalls that are sustained for any length of time produce flooding. There have been numerous calls for solutions.

I think we have addressed the wetlands portion of it with the amount of lands that will, in effect, be set aside as wetlands, and I think that will also be a necessary recharge area, so I would ask this committee to give serious consideration to this proposal, because I do believe this is our last opportunity. Thank you.

Mr. NOWAK. Thank you both very much for your excellent testimony.

Looking at the tunnel in the recommended plan by the corps, you're going down about 13½ miles long to the Passaic River, and the addition that you both, I understand, recommend for various reasons, for flooding and the other reasons that you mentioned, would carry that approximately five miles into the bay? Is that correct?

Mr. TORRICELLI. That's correct, Mr. Chairman.

Mr. NOWAK. The discussion, of course, that we'll be entering into with the Corps is looking at that alternative and seeking additional views relating to that.

Mr. TORRICELLI. Mr. Chairman, how many miles, of course, it would be would depend on where in Newark Bay the Army Corps believed it was best exited for minimum impact, so before I commit that it is five miles as opposed to being six, it is some approximation of that, just so the record is accurate.

Mr. NOWAK. But you're recommending that to avoid that third possibility of flooding in the Passaic, bringing this additional stress on that river.

Mr. TORRICELLI. That's correct, Mr. Chairman. It is estimated by the corps that if the tunnel were extended to Newark Bay, even at 100 year flood, Newark Bay would only rise two inches because of its direct drain into New York Harbor and the Atlantic Ocean.

Therefore, there would be no apparent need for any levees or dikes. Now, it is, of course, required that the Army Corps confirm, as they have verbally, but I think confirm as a matter of engineering that no levees or dikes would be required if it entered directly to Newark Bay.

Mr. NOWAK. The levy areas on Eighth Street, River Street, Main Street, Riverside Avenue, number two and number one River Road, all of those levees that are proposed are flood walls, depending on the circumstance.

They're all affected, are they, by the tidal impact of the bay?

Mr. TORRICELLI. You're speaking in North Arlington, Rutherford, and Lyndhurst. Yes, the title areas of the Passaic River go indeed far beyond further up the river than that.

Those earthen dikes would all be in current park lands where there are recreational fields, and that is the nature of the concern because, one, we've moving a flood danger now with the southern Bergen County, where at the moment there is no danger, and, second, we're denying all that recreational land because of the construction of the dikes and levees.

Mr. Chairman, let me just say finally, the question of the Bush Administration's position came up in Mr. Gallo's testimony.

The Administration has evidenced real concern for the potential victims of flooding in Passaic County. They have, however, revealed a total disregard for the flooding danger and environmental impact to those people living in southern Bergen County.

I would prefer that the Bush Administration had waited and had reviewed our alternative. I think they would have seen that it was the superior plan.

Mr. ROE. If the gentleman would yield?

Mr. NOWAK. Yes, I'll yield.

Mr. ROE. Under the Corps law, we have required them to analyze, review, and so forth, just to clarify the record, and make a recommendation that has to be the optimum recommendation they can make, particularly relating to cost benefit ratio.

The cost benefit ratio, as I recall the issue, was higher when they talked about letting that outlet line come somewhere in the area of Newark Bay.

They were following the direction they were told to go by the Congress of the United States. However, as you point out and as Ella pointed out, there was a whole series of different options, and they did present the option, that's one of them, they didn't recommend that, but that's one of the options to take, and all that technical data environmentally and so forth has been reviewed.

We were just looking over those figures here. They estimate, the figure is six miles, by the way, an additional six miles, and the added cost was approximately $250 million.

So it's really up to us, meaning the State of New Jersey and this committee and therefore the Congress, to determine what recommendation they would make at that point.

It would mean, however, in part, that if we were to go the additional five or six miles to the Newark Bay, it would cost us additional funding, both in Federal and in matching money.

But I think as both you and our colleague, Dean Gallo, pointed out, the figures last year in the 1984 storm was an estimated damage of $370 million in just that one storm alone.

So I just wanted to clarify the record that the committee has a responsibility also to say to the corps, in the interest of the testimony, the public feeling this is the direction we should go, which the Congress would decide.

Mr. TORRICELLI. If I could, it should be said on the record as well, Mr. Chairman, that these are not the only responsibilities that this committee has for flood protection and for environmental protection in southern Bergen County.

There's another one, too, and that is we will have achieved nothing if a billion dollars is spent to relieve the current flood problems and the State of New Jersey allows further development in wetlands and current virgin forests in our State.

We will only be creating a further flood problem a decade hence, and I hope that message is received by the State. If we do not have some managed land control, there is no end to the number of tunnels that are going to be required.

Mr. ROE. Would the gentleman yield, if folks would indulge me just one more minute?

God, you talk about exasperation, because I think that was manifested in my initial presentation and also was by Ella Filippone.

Come with me and walk through that basin those who have not seen it, come into Fairfield, come into Caldwell, come into parts of Wayne, come into Pompton Lakes, come into the areas where right today they're building.

Now, in fair play, when we ask the people of the United States to match part of these costs, and, you know, why didn't the State stop it, and they just built and built and built, I'm thinking through the big piece in that whole area, what is going to change that unless we do something to change it?

Mr. TORRICELLI. Well, in response, indeed when the Newark Bay extension was offered as a way to serve both communities, part of my statement was that, first, as a condition of my support, there must be no loss of park lands, there must be no earthen dikes or levees, and the State of New Jersey must adopt a policy to stop irresponsible development of what few remaining open spaces we have so as not to create future flood problems.

The fact is that if this tunnel is never built and development continues along the northern Passaic River, areas of southern Bergen County that do not now have flood problems will have those problems.

The problem is coming. If overdevelopment is not stopped, no one will be spared.

Mr. NOWAK. I think you both made a good point, and Mr. Gallo referred to the wetlands hearings that we're proceeding with that are running really parallel to this, and this is a result of what has been transferred to the committee because we were unable to protect the 225 million acres of wetlands over the history of the last 100 years, and now we're faced in this country with about 99 million acres left to do all of those things that the 225 million acres used to do, including flood control.

So I think you make a very valid point when you say we've got to look at this in broader terms than just this project. You've got to get the cooperation of the counties and the cities and the States if you're able to prevent other kinds of flooding actions, either south or lower than what you're trying to cure here.

So we hope we can proceed on both tracks, and we appreciate you coming.

Mr. **Torricelli**. The word for it, by the way, Mr. Chairman, has been greed. Developers who sell housing to innocent families in areas they know are prone to flooding or were wetlands or where nature intended them to have an absorption capability.

That has been done year after year, and, unfortunately, State and local officials have allowed them to do it, and this committee is about to receive the bill for it.

Mr. **Nowak**. Thank you.

Congressman Stangeland.

Mr. **Stangeland**. I have no questions. I want to commend both Mr. Gallo and Mr. Torricelli for excellent testimony, and we want to work with you and see if we can't get a resolution that hopefully does not continue to divide your communities up in northern New Jersey. Thank you.

Mr. **Torricelli**. Thank you very much.

Mr. **Gallo**. Thank you.

Mr. **Torricelli**. Thank you, Mr. Chairman.

[Mr. Torricelli's prepared statement and Mr. Gallo's prepared statement follow:]

STATEMENT OF

REPRESENTATIVE ROBERT G. TORRICELLI

SUBMITTED TO
THE HOUSE PUBLIC WORKS AND TRANSPORTATION
SUBCOMMITTEE ON WATER RESOURCES

MARCH 14, 1990

Mr. Chairman, I would like to begin by thanking you for this opportunity to share with the subcommittee my views on Passaic River Basin flood control proposals. The Passaic River Basin, which includes central Passaic County, southern Bergen County and western Hudson County in New Jersey, faces two realities.

The first, as years of hearings on major water-related public works projects have taught this subcommittee, is that this region has the second most serious flooding problem in the country. Over the years, floods have resulted in hundreds of millions of dollars of property damage and, have cost several people their lives. In April of 1984, a monstrous flood overwhelmed the Passaic River Basin, causing $330 million in property damage, the loss of three lives, and injury to scores of others. Looking back on this tragedy and others before it, it is no wonder that this region averages $84 million a year in flood damage. The Passaic River Basin occupies 10.5 percent of the area of New Jersey, encompasses a population of 2.5 million people, includes 112 municipalities, and is the site of 48,000 residences and businesses. If a flood the size of the devastating 1903 deluge were to occur today, estimated damages would approach $2 billion.

The second reality is that years of environmental efforts are beginning to show progress. In recent years, there has been a concomitant increase in Passaic River water quality and the amount of riverbank land used for recreation. In fact, the Corps has implemented the federally-funded East Bank Passaic River Erosion Control Program, to control erosion and create parklands along the lower Passaic River. In many towns, land along the Passaic River is the only public parkland available.

We must protect and balance both interests: the need for flood control and the need for environmental restoration. Such a balance cannot include extensive use of dikes, dams, and levees; nor can it leave property and lives subject to the risk of flooding. The balance can be achieved only by the plan endorsed by Chairman Roe, Mr. Gallo, and myself - the Dual Inlet Tunnel Plan with the Newark Bay extension. Let me make it clear that my support for the Flood Tunnel is entirely contingent on its inclusion of the Newark Bay extension and thus, no third river outlet, no reliance on levies, dikes, and dams, and no loss of property and lives.

Congress initiated flood-control efforts in the region when it authorized the Army Corps of Engineers to study ways to control flooding in the Basin in 1976. Under guidelines issued by the House of Representatives, the Corps was to consider a number of alternatives including tunnels, dikes, walls and reservoirs. Congress stipulated that any plan should provide protection from a 100 year flood, should be cost effective, should consider public acceptance, and should not rely on the extensive use of dikes, dams and levees.

The Army Corps has, over the years, considered many flood-control plans including a number of different tunnel options. In 1988, the Corps submitted a 480-page proposal outlining the $879 million Dual Inlet Flood Tunnel Project. Thirty-nine feet in diameter and 13.5 miles long, the main tunnel will plunge 450 feet into the earth in an effort to divert flood waters from low-lying areas in central Passaic County down to the lower Passaic River near Nutley. The tunnel plan also takes into account the effects that such a project could have on aquifers in the region. Since the tunnel is merely moving floodwater downstream more quickly, the New Jersey Department of Environmental Protection and the Environmental Protection Agency have both determined that it will not lessen aquifer-replenishing groundwater. To be sure that enough wetlands remain to replenish the aquifers, the tunnel plan calls for the acquisition and protection of 5,350 acres of wetlands.

Unfortunately, the Tunnel will increase the flood potential in southern Bergen and western Hudson Counties, so the Corps has planned an extensive 26-mile system of five-to-thirteen feet high levees for this area. To disturb this invaluable public resource by filling it with levees would simply undo all of the progress we have made thus far. Therefore, this tunnel plan provides residents in the Passaic River Basin with something less than a complete answer to their flooding problem. While the plan addresses flooding in central Passaic County, it merely shifts the burden to my district in southern Bergen and western Hudson Counties. If the Corps' plan were implemented, it would eliminate many newly established and irreplaceable recreational areas along the banks of the lower Passaic River. Although the Corps' plan calls for landscaping the levees in an effort to minimize damage, park lands, playing fields and boating activities would be irreparably disturbed by mountainous levees.

Furthermore, the Corps' plan also contradicts the Congressional guidelines for flood control in the region as well as federal funding efforts for the refurbishing of parklands along the Passaic. The Congressional guidelines included in the 1976 authorization of the flood-control study were clear: The Corps was to pursue not only the most cost-effective plan, it was also supposed to pursue the option that would produce the least amount of community friction and the fewest levees and dikes.

What is more, the federally-funded East Bank Passaic River Erosion Control Program, which the Corps has implemented to control erosion and create parklands along the lower Passaic River, will have been a waste of federal funds if the present Corps' tunnel plan is pursued. In essence, federal funds will have been spent on the creation and then destruction of riverbank parklands.

Recognizing that the present Corps' tunnel plan is not feasible, some have supported the buyout of homes and businesses. This sounds good in theory, but it is not realistic in practice. Thousands of citizens and businesses cannot be moved without great expense and significant local opposition. With new home prices in my district averaging about $250,000, there are few places in the area that people in the flood plain could afford to move to. Besides, people will not simply leave houses that, over many years, have become homes.

As the Representative of southern Bergen County, a region that would be greatly affected by the flood-control effort, I have a real stake in seeing that the best possible plan is pursued. The only reasonable plan is for the Corps to move ahead with the extension of the flood tunnel to Newark Bay. By doing this, the cost of the tunnel project will rise, but local support will remain strong as parklands and homes are preserved.

Many are concerned about the $300 million price tag of the tunnel extension. The additional price of adding the 13 miles of tunnel needed to reach Newark Bay is still cost effective. Assuming the conservative flood damage figure of $84 million a year, the entire project will pay for itself in a relatively short time. The question then becomes what the cost is, in dollars and lives, of not acting.

Mr. Chairman, I also would like to take this opportunity to discuss other projects that affect my Congressional district. Another project concerning the Passaic River is the removal of pilings, barges, and other debris from the River. This debris creates water pollution, makes development difficult, and makes both commercial and recreational transportation dangerous.

The removal of this debris is part of the New York Harbor Collection and Removal of Drift project. The Army Corps currently considers the extension of work into the Passaic River a new construction start and thus ineligible for inclusion in the existing authorization. I hope this Subcommittee and the full Committee will authorize the Army Corps to clear the Passaic, and to complete this work by January, 1992.

Another concern to towns in Bergen and west Hudson County has been flooding along the Hackensack River. Hardly a year goes by when heavy rains and high tides conspire to flood roads, homes, and businesses along the river and its tributaries. Every full moon, portions of Hackensack and the Meadowlands find themselves underwater.

The history of the Army Corps of Engineers' involvement in flood control along the River dates back to the Flood Control Act of 1958.

Since then, several studies have been completed and solutions have been offered. In 1982 the New York region of the Corps finished a report. Its recommendations for Federal funding for a tidal flood gate at the mouth of the Hackensack were dismissed by the North Atlantic division because the cost/benefit estimates were judged to be faulty. In the aftermath of the discredited 1982 report, the 1988 Water Resources bill authorized a new study using current housing, topographic and flood data to determine the possible damage from a 100, 50, and 10 year flood.

Unfortunately, this study was carried out using data from 1985. In addition, although the Hackensack Meadowlands is among the most valuable tracts of real estate in the nation, the Corps' study overlooks the potential value of currently undeveloped land that is threatened by flooding. However, the Corps plans to do a reconaissance study on more modest flood control measures, including a gate at the Route 46 bridge in Little Ferry. This study will be funded solely by $70,000 from the State of New Jersey and should be finished this summer. The reconaissance study will be followed by a cost-shared feasibility study in FY91 using $600,000 in Federal funds already set aside for Hackensack River flood control in FY90 but still unused. These studies are already authorized, but I bring them to this subcommittee's attention in hopes of gaining your support for the Army Corps' Hackensack River flood control efforts when they reach the implementation stage.

Finally, I would like to mention a project involving Overpeck Creek in Englewood, New Jersey. This potentially valuable land in the southern part of the town is plagued by flooding, which could be eliminated through the construction of a flood wall just south of Route 4. The city already has a permit from the New Jersey Department of Environmental Protection and has $2.9 million from Bergen County to cover the entire cost.

All that is needed is a permit from the Corps, and it is my understanding that this permit will be issued shortly. I did want to bring this to the subcommittee's attention and would hope to have the subcommittee's support should further action become necessary.

Mr. Chairman, the Subcommittee is also taking the testimony of my colleague from New Jersey, Mr. Gallo. He, along with Chairman Roe, endorses the tunnel plan with the extension to Newark Bay -- a plan I have supported all along. The Subcommittee is also hearing testimony from PROTECT, which also endorses the Newark Bay extension. I hope this Subcommittee and the full Committee will authorize the project according to this plan. I also strongly urge this Subcommittee to consider carefully my testimony, that of my colleagues, and that of PROTECT. We cannot overlook ways of improving the Corps' tunnel plan to the benefit of all who live and work in the Passaic River Basin.

Thank you.

CONGRESSMAN BOB TORRICELLI SPEAKS OUT

— A REPORT FROM WASHINGTON

NEWS RELEASE

FOR IMMEDIATE RELEASE:
WEDNESDAY, MARCH 14, 1990

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TORRICELLI: NO FLOOD TUNNEL WITHOUT EXTENSION

WASHINGTON, D.C. -- There was a blunt message behind Rep. Bob Torricelli's (D-9th Dist.) testimony before a House subcomittee today on the controversial Passaic River flood tunnel -- "the tunnel will not be built unless it goes all the way to Newark Bay."

Torricelli made the remark as he and Rep. Dean Gallo (R-11th Dist.) testified before the House subcommittee on Water Resources. Rep. Robert Roe (D-8th Dist.), who sits in the subcommittee, has taken the same position as Torricelli on the tunnel plan.

"The Passaic River Basin suffers from the second worst flooding problem in the country," Torricelli said. "But it makes no sense to transfer that problem from one part of the state to another. We want to make it clear that the tunnel will not be built unless it goes all the way to Newark Bay."

The current plan calls for a 13.5-mile, $900-million tunnel buried 400 feet below ground reaching from Pompton Lake to Rutherford. The tunnel would exit into the Passaic River at Rutherford and flood waters would be contained by a series of levees, dikes and dams to the river's outlet into Newark Bay.

"We have to strike a balance between the need for flood control and the need to protect and preserve the quality of life in southern Bergen County," Torricelli said. "To move the flooding problem to Rutherford, Lyndhurst, North Arlington and Kearny makes no sense. These communities have worked for years to improve their quality of life with parks and open space along the river. We won't tolerate

-MORE-destroying that effort with massive dikes and levees."

The tunnel extension would cost an estimated $300 million, but Torricelli said that the extension was cost-effective when the damage done by flooding is considered.

"When the river flooded six years ago the damage was estimated at more than $300 million, not including the incalculable cost of three lives lost, scores of injured, and 9,000 people who had to be evacuated," Torricelli said. "Conservative estimates are that flood damage costs $84 million each year. At that rate, the entire tunnel project would be paid for in a little more than a decade."

Torricelli testified that allowing the tunnel to be built without the extension would strip towns in southern Bergen county of scarce parklands and reverse successful efforts to improve the river as a recreational resource. In addition, the plan contradicts Congressional guidelines for regional flood control, Torricelli said.

According to legislation passed in 1976, the Army Corps of Engineers, which has developed the tunnel plan, was to pursue not only the most cost effective plan, but one which would produce the least amount of community friction and the fewest numbers of levees and dikes.

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TESTIMONY BY REP. DEAN A. GALLO
NEW JERSEY, 11TH DISTRICT
BEFORE THE SUBCOMMITTEE ON WATER RESOURCES
WEDNESDAY, MARCH 14, 1990

IN SUPPORT OF AUTHORIZING THE POMPTON/PASSAIC RIVER DUAL INLET TUNNEL DIVERSION PROJECT TO PROVIDE FLOOD PROTECTION IN THE BASIN

MR. CHAIRMAN: I thank the Gentleman from New York, Mr. Nowak, for this time today allowing me to speak about the critical importance of the Passaic River Dual Inlet Tunnel Diversion Project which is designed to end the devastation caused by flooding in the Passaic River Basin of New Jersey. I would also like to thank my fellow colleagues from New Jersey, Congressman Bob Roe, and Congressman Bob Torricelli for their continued support and efforts on this important Project.

The Passaic River Tunnel Project is a multi-year effort that now is ready to receive the next step in a series of Congressional actions authorizing construction.

I commend the Bush Administration for its recommendation and endorsement that this 879 million dollar Project be given top priority and I urge the members of this subcommittee to make it an integral part in the Water Resources Development Act of 1990.

My purpose today is to share with you, my former colleagues on the Public Works and Transportation Committee, some of the history of the problem and to lend my support to a project that could very well be our last and only hope for a solution before the ultimate disaster occurs -- as eventually it will.

The Passaic River Basin has been recognized as being one of the most serious flood problems on the East Coast. The Basin contains some of the most densely developed metropolitan area in the country. The development of its floodplain, due to heavy residential and industrial growth, and its location in the East Coast stormbelt has led to a history of severe hardship during flooding.

Since records have been kept, there have been 19 major floods in the Passaic River Basin. Half of these occurred before 1960 and the other half during the last 30 years. The Lower Basin has been declared a Federal Disaster Area 7 times in the last 20 years.

The worst flood, which is still considered the flood of record in most of the Basin, occurred in 1903. If that record flood were to happen today, it would result in billions of dollars in damage.

Today, with state-of-the-art warning devices in place, we can be assured of an earlier warning. However, we would still face greater overall devastation than we would have from previous floods, because there has been an increase of 2.4 million people living in the area.

You only have to look at the flood of 1984 to understand the devastation that takes place in the Basin. The 1984 flood damaged some 6,400 properties at a loss of 355 million dollars. Homes were under 9 feet of water, more than 9,000 people were evacuated, four lives were lost and nearly 4,000 homes suffered a long-term loss of utility service.

Since that flood, we have redoubled our efforts to begin the construction of the Tunnel Project and to protect the public health and safety of the residents.

I am satisfied that the Army Corps has chosen the only viable solution. The recent approval of the Feasibility Report and Environmental Impact Statement for the Main Stem Passaic River by the Chief of Engineers provides additional proof that the plan is the appropriate response to solve the flooding problems of the Passaic River Basin.

The comprehensive Passaic River Tunnel Project, which includes the acquisition for preservation of 5,350 acres of wetlands and 5.9 miles of channel modifications, incorporates a state-of-the-art concept -- the construction of a 13.5 mile underground water diversion tunnel and a 1.2 mile spur tunnel. These tunnels would take water from the middle of the Basin during high water bypass natural and immovable surface barriers that have always prevented the safe flow of flood waters and allow the water to empty into a safe area. Also, the retirement and preservation of more than 5,000 acres of wetlands would replenish the underground aquifer and provide for the necessary natural storage areas for water within the Central Passaic Basin.

This plan is the result of an exhaustive review by the Corps of all possible options. The State of New Jersey has been directly involved in the planning of this project and in 1984 endorsed the selection of the tunnel plan from among a broad range of alternatives. Since 1981, the New Jersey Department of Environmental Protection has been on record as offering to act as the non-federal sponsor for the project.

In addition, the flood control plan, including the tunnel construction, has the support of most of the residents of the Passaic River Basin, who have seen what this river can do and want to prevent the devastation that is possible in the future.

Today, you may hear from individuals that oppose the Passaic River Tunnel Project and instead favor a partial buyout alternative. This alternative exemplifies the proverbial comparison of apples and oranges. We are not just talking about single family houses that would have to be bought out and relocated. This area also includes numerous commercial, industrial, and public facilities. Some of the houses and owners have been in this area for over 60 years and they would find it very difficult to accept a routine government offer to leave their homes, communities, families and jobs.

Moreover, due to the large amount of land effected by flooding and the high cost of real estate in Northern New Jersey, such an alternative would prove to be more expensive than the recommended plan. A floodplain buyout plan at a comparable level of protection would cost more than 4.2 billion dollars, far in excess of tunnel construction costs.

Most of the remaining concerns with the construction of the flood diversion tunnel involve its terminus. There are some government officials who oppose the project solely because of the placement of the terminus. For the record, I wish to once again state my commitment to moving the terminus point to ensure safe water flow into Newark Bay. I believe that this is the best way to address the remaining concerns and by doing this should attract additional support for this critical project.

This project is more than construction of a tunnel, but the tunnel is the center piece of flood control efforts and the only real hope we have to avoid future disasters.

It is a good solution and I urge my colleagues on the Subcommittee to take the required Congressional action and authorize this worthy project. It is time to stand firm on the urgent need for flood control in the Passaic River Basin.

Thank you, Mr. Chairman, for your time and I look forward to your support.

Mr. **Nowak**. We will now have a series of witnesses, and I guess we could do this in a panel. There are several organizations and clubs and public officials that would like to express themselves.

If we may, maybe we can use the microphones and bring all of the next series of people who are going to testify together, and if we could have them sit around the table and share the microphones, and then we could ask questions of the panel.

First would be Joe Walsh, who is the spokesperson for the New Jersey Audubon Society, and perhaps if you would take a seat, Mr. Walsh, on the far left at the table so that you could reach the mike, and then we could share those, and the next would be Commissioner Peter J. Russo, Chairman, Passaic River Cleanup Committee.

Mr. Russo, if you would come up, and next is Vincent Frantantoni, the Commissioner of Belleville, if you will come forward.

Francis Riley, who is a freeholder aide, and Freeholder Donohue, from Bergen County Ward——

Ms. **Donohue**. Mr. Chairman, I'd like to respectfully correct that. I am representing myself. I'm Mary Donohue, Freeholder from Bergen County. I was able to persuade my boss to let me come down today.

Mr. **Nowak**. I'm sorry. Whose place are you taking, Mary?

Ms. **Donohue**. Francis Riley. She's my aide.

Mr. **Nowak**. Oh, I see, okay.

Ms. **Donohue**. Thank you.

Mr. **Nowak**. So we will have Mary Donohue taking her own position.

Our next witness, next to Ms. Donohue, would be Abigale Fair, who represents the Association of New Jersey Environmental Commissions. Ms. Fair, if you'll come forward.

Then we'll have Eric Martindale, who is an Alternate Political Representative, Northern New Jersey Chapter Sierra Club.

We'll also have Herbert J. Cannon, Chairman of the Passaic Ground Water Protection Committee, and I guess we have room for one more if we try hard, Paul Butler, Office of the Mayor, City of Newark.

While he is coming to the stand, Mr. Walsh, if you'd like to start your testimony, and we'll proceed accordingly down the list.

TESTIMONY OF JOE WALSH, SPOKESPERSON, NEW JERSEY AUDUBON SOCIETY

Mr. **Walsh**. Thank you, Mr. Chairman and members of the subcommittee.

I am here today representing the New Jersey Audubon Society, a non-profit Statewide conservation organization with 10,000 members.

The environmental community at both the State and National levels has had difficulty any time a substantial price tag is attached to the achievement of one of our legislative goals.

Why is the Passaic River Tunnel Project, which does not have the support of a single major environmental group and which will easily cost in excess of one billion dollars and cause great environmental damage, forging ahead in our Nation's Capital?

This tunnel and its complex support system is a massive TVA-type construction project that will drill some 15 miles through solid rock under the Passaic River to divert flood waters to Newark Bay.

It would destroy some 900 acres of wetlands that the Passaic River Basin can ill afford to lose, regardless of where the tunnel eventually discharges.

Supporters of this project are busy trying to obscure the loss of these 900 acres by stressing that tunnel money will purchase 500 acres now in private ownership.

This is a shrewd but distorted way to present the wetlands issue. It ignores the fact that these 5,000 acres are currently protected, both by New Jersey and Federal law.

It is not absolute protection, but the tunnel plan can't offer that, either. What will protect the basin's remaining wetlands is tougher enforcement by both the State of New Jersey and especially the Army Corps of Engineers whose backlog of field inspections for outstanding violations has been quite lengthy.

If the corps could have diverted even a portion of the staff time, money and energy they have spent over the past five decades working on flood control plans to protect the wetlands of the basin, perhaps they would not be proposing such an engineering boondoggle as a solution to what is clearly a land use problem.

A change in the corps priorities, that's the real diversion project that's needed. We also believe that the corps is overextending itself in much the same way it has with some of its Florida projects with its confident predictions that it can successfully manage the timing and quantity of diverted water necessary to keep the wetlands loss at just 900 acres.

If the corps can't do this management job just right, the potential loss to drying or excess flooding of wetlands will be even greater than previously admitted.

The tunnel is being offered as the great technological escape from the responsibility for acts of omission, as well as commission.

The signal the tunnel sends is this. Go ahead and ignore nature, as well as sensible land use problem planning. We can fix any mistake that you may make.

To add further insult to this lack of responsibility, even the communities supporting the tunnel plan refuse to put up their share of local funding.

When citizens of Salem, Camden and Warren Counties hear about how we got into the present fix and see the price tag for this remedy, they're not going to be very happy and likely not very supportive.

If any substantial public funds are to be spent on the Passaic Basin flooding problem, they would best be directed to increasing the scale of the buy-out, reliable advance warning systems, and the resources necessary to temporarily close roads and evacuate those in the greatest danger.

Does it make sense to pour all this money into a tunnel and ignore the need for conservation and sound land use planning in the highlands of the northern part of the basin?

Repeating the mistakes of the upper basin in the lower will only complicate the problem. To its credit, the conservation community, particularly the Passaic River Coalition, has taken the responsibility for offering legislation to help the flood victims, while at the same time doing no further damage to an already reeling basin environment.

The basin simply cannot afford to lose the wetlands that the tunnel, its levees and flooding basins will destroy forever.

Thank you, Mr. Chairman.

Mr. NOWAK. Thank you very much.

[Mr. Walsh's prepared statement follows:]

njas
new jersey audubon society
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March 1, 1990

TO THE EDITOR:

THE PASSAIC RIVER TUNNEL: WRONG SOLUTION, WRONG PRICE, WRONG TIME

At both the state and national levels, the environmental community has had tough going anytime there has been a substantial financial price tag to achieving one of our legislative goals. So why is the Passaic River Tunnel Project, which doesn't have the support of a single major environmental group, and which will easily cost over a billion dollars and cause great environmental damage, forging ahead in Washington, DC?

This tunnel and its complex support system, is a massive "TVA" type construction project that will drill some 15 miles through solid rock under the Passaic River to divert flood waters to Newark Bay. It would also destroy some 900 acres of wetlands that the Passaic River Basin can ill afford to lose. It is moving ahead without a clear democratic mandate from the citizens of New Jersey because former Governor Kean and Senators Bradley and Lautenberg and Congressman Roe are in favor of the project. But the tunnel's proponents have not had the nerve to come before the New Jersey Legislature or our voters with a bond issue or any other means of financing our share of the project, which the Army Corps of Engineers estimates will be over 200 million dollars.*

The Bush Administration (remember "no net loss" of wetlands?) has given its blessing to the federal share, but the source of the state's share is still a mystery. We think our citizens deserve some candid dialogue on it.

Professional lobbyists for the tunnel, such as J.B. Wiley, Jr. of

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* On March 1st, the press carried accounts of an effort by three NJ Republican legislators to introduce a bond issue to pay for the NJ share of the tunnel. The state's budget deficit for 1990 is estimated to be about one-half billion dollars.

"PROTECT," are busy trying to obscure the loss of 900 acres of wetlands by stressing that tunnel money will purchase 5,000 acres of wetlands "now in private ownership." This is a shrewd but distorted way to present the wetland issue.

It ignores the fact that these 5,000 acres are now protected by law, New Jersey's and federal. It is not absolute protection, but Mr. Wiley and the tunnel proponents can't offer that either. What will protect the basin's remnants is tougher enforcement by both the State of New Jersey and, especially, the Army Corps of Engineers, whose backlog of field inspections for outstanding violations has been quite lengthy. If the Corps could have diverted even a portion of the staff time, money and energy they have spent over the past five decades working on tunneling plans to protecting the wetlands of the basin, perhaps they would not be proposing such an engineering boondoggle as a solution to what clearly is a land use (abuse) problem. A change in the Corps priorities - that's the real diversion project that's needed.

We also believe that the Corps is overreaching itself, in much the same way it has in some of its Florida projects, with its confident predictions that it can successfully manage the timing and quantity of diverted water necessary to keep the wetlands loss at "just" 900 acres. If the Corps can't do this management job just right, the potential loss to drying or overflooding of wetlands will be even greater than admitted.

There is another crucial aspect to the whole tunnel situation that needs to be directly addressed: that of individual responsibility, a concept that is much in the news today. The real burden of responsibility for the problems that have led to the tunnel illusion lies not so much with the individuals and businesses who bought and built in the Passiac's flood plains and wetlands, because if they were new to the area or unschooled in reading landscapes, they might not have known about the long history of Passaic Basin flooding that the Corps has documented for us: 1811, 1865, 1882, 1896, 1902, 1903, 1936, 1938, 1945 ...

But the same can't be said for some local and state officials, the go-go promoters who knew the above history and the floodplain boundaries and yet never issued warnings in words or on deeds to the unsuspecting and at the same time helped destroy far too many acres of wetlands that might have at least reduced the intensity of the problem.

The tunnel is being offered as the great technological escape from the responsibility for these acts of ommission and commission. The signal the tunnel sends is this: go ahead and ignore nature and sensible land use planning, we can fix up any mistakes you make.

And to add further insult to this lack of responsibility, even communities supporting the tunnel refuse to put up a local share of the money needed for it. When citizens in Salem, Camden and Warren counties hear about how we got to the present fix and the price tag for this nightmare remedy, they are not going to be very happy.

If any substantial public sums are to be spent on the Passaic Basin problems, they would be best directed to increasing the scale of the buyout, reliable advance warning systems and the resources necessary to temporarily close roads and evacuate those in the most danger. Does it make sense to pour all this money into a tunnel and ignore the need for conservation and sound land use planning in the Highlands of the northern part of the basin? Repeating the mistakes of the lower basin in the Highlands is only going to make matters worse.

To the credit of the conservation community, especially the Passaic River Coalition, it has taken the responsibility for offering legislation to help the flooding victims while at the same time doing no further damage to the already reeling basin environment. The basin simply can't afford to loose the wetlands that the tunnel and its levees and flooding basins will destroy.

Respectfully submitted,

William R. Neil

William R. Neil
Assistant Director
of Conservation
N.J. Audubon Society

(per Joe Walsh, spokesperson)

TESTIMONY OF PETER J. RUSSO, CHAIRMAN, PASSAIC RIVER CLEANUP COMMITTEE

Mr. Russo. Thank you very much for allowing me to testify here today, but first of all I would like to make a statement about what Congressman Torricelli said about the Passaic River.

He said it was the most polluted river in the world. I want to remind him that in 1934, 1935, and 1936, I used to swim in the river, boat in the river, have plenty of recreation in the river, drank all that water down there, and I'm still living at 76 years old.

I have a South Bergen News article here that states that in 1935 it was a "swimming" river. The reason that it's not a swimming river today, and the reason that there's a problem is because the Army Corps of Engineers completely neglected the Passaic River.

How can Congress justify spending $1.2 billion, $1.3 billion, or more at the expense of the taxpayers of the State of New Jersey?

How can Congress justify spending $1.3 billion or more when the township engineers, the architects, the councilmen of Wayne, allowed the illegal building of all these buildings in their area?

How can Congress justify spending $1.3 billion or more when the officials of Wayne allowed people to move into buildings that were already occupied by people in the flood area?

How can Congress justify not buying out these homes in this flood area and relieve these people of the hardships they endure?

They've been doing it for the last 30 years. I think they should have been buying the homes for the last 30 years of the people in the flood plains.

The buy-out plan should have started 30 years ago. How can Congress justify not helping these victims who will be in this flood area from 1990 to the year 2000?

I just heard a figure here today of $4 billion for the buy-out plan. If we can send a man to the moon, if we can spend money to send money to foreign countries like they're sending here today, we certainly can justify spending $4 billion to relieve these people in this flood area.

How can Congress justify destroying the beautiful river that has been used by the young people of the high schools for rowing teams and motor boats?

How can Congress justify destroying a beautiful river when the people enjoy just sitting on the banks and the scenery of this river?

How can Congress justify the Army Corps of Engineers allowing Wayne in all accounts to build in the flood area?

How can Congress justify the fact that the Army Corps of Engineers has not made any attempt to clean the Passaic River or any other river in the State of New Jersey?

This is why we have a dirty Atlantic Ocean, because they haven't done their job. How can Congress justify the Army Corps of Engineers not getting rid of the sunken barges that break up and end up at the beaches of Sandy Hook, from Sandy Hook to Cape May?

How can the members of Congress justify the Passaic River and the Hackensack River not doing something constructive in cleaning the dirtiest rivers in the country?

How can Congress justify a Congressman in our area who has completely confused the people in the district? One year he's for the tunnel; the next year he's against the tunnel; then on the fence for the rest of the time.

How can Congress justify all these lawyers in the flood area who performed at the closing of the homes that were supposed to protect the rights of the clients?

How can Congress justify all the banking institutions in the area, Wayne, Lincoln Park and Pompton Lakes area, extending questionable loans to these poor victims in the flood area?

The first flush of the tunnel is expected to contain sediments, decaying fish and debris that would enter the tunnel during the flood events.

This would degrade the water quality in the Lower Passaic and in the Newark Bay area. The proposed levees and flood walls that will be constructed at the water's edge will deprive the public of access to the river and hinder the view, not to mention the flooding problems we will have due to the higher river elevation.

The concept that we see will be transferring the flood water from the Upper Passaic Basin to the Lower Passaic Basin instead of solving the problems at its source.

The tunnel levy and dike plans will require long term maintenance which municipalities will have to pay. A buy-out plan has much higher initial costs, but there will be no long term maintenance.

As I said before, I would be in favor of spending $4 billion or any amount of money to buy out and help these poor people, not 30 years from now, but today.

During the last nine months, I have been Chairman of the Cleanup Committee of the entire Passaic River, with the cooperation of all the counties on the Passaic River, and we have taken over 300 truckloads of dead trees and garbage.

The Cleanup Committee in Lyndhurst and all of the towns bordering the Passaic River want to and will restore this river to a beautiful fishing river, boating river, sailing river, for our young people and senior citizens.

Sanitation is a way of life. It's the quality of living that is expressed in the clean rivers, the clean business, the clean neighborhood, and the clean oceans.

Please don't fool around with Mother Nature. The beautiful Passaic River was there before you and I were born. Let's keep it there for nature's sake. Thank you very much.

Mr. NOWAK. Thank you very much, Mr. Russo, for your statement.

Unfortunately, we have the second call. Those bells that you're hearing are notification that we have a vote on the House floor, and we'll have to run over there and vote and then come back. We'll stand in recess, however, for just 15 minutes. [Recess.]

[Mr. Russo submitted to the subcommittee copies of petitions, with signatures, against the "Passaic River Tunnel." These were retained in subcommittee files.]

[Mr. Russo provided the following for the record:]

Commissioner
PETER J. RUSSO
Director of Department of Parks
•
RICHARD PIZZUTI
Superintendent of Parks

TOWN HALL

RUTH A. WOERTZ
Secretary
•
MARY ANN LA POLLO
Administrative Clerk

OFFICE OF THE DIRECTOR
Department of Parks and Public Property
550 Cleveland Avenue
Township of Lyndhurst, New Jersey 07071
Phone: (201) 438-0060

1) How can Congress justify spending one (1) billion $300,000,000 or more at the expense of the taxpayers of the State of New Jersey.

2) How can Congress justify spending one (1) billion $300,000,000 or more when the Township Engineers of Wayne, New Jersey allowed this illegal building in a Flood Area.

3) How can Congress justify spending one (1) billion $300,000,000 or more when the town architects of Wayne, New Jersey planned this illegal building in a Flood Area.

4) How can Congress justify spending one (1) billion $300,000,000 or more when the Councilmen of Wayne, New Jersey allowed this illegal building in a Flood Area.

5) How can Congress justify spending one (1) billion $300,000,000 or more when all the Mayors and Boards of Adjustment, and Planning Boards during the last thirty (30) years, allow these contractors to build illegally in a Flood Area.

6) How can Congress justify spending one (1) billion $300,000,000 or more when the Officials of Wayne allowed people to move in buildings that were already occupied by other people in a Flood Area.

7) How can Congress justify not buying out these homes in a Flood Area, and relieve these people of the hardships they endured.

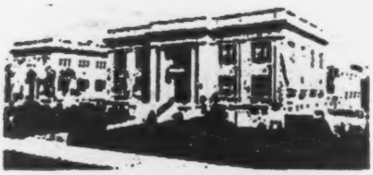
8) How can Congress justify not helping these victims who will be in this Flood Area from 1990 to the year 2000.

9) How can Congress justify destroying a beautiful river that is being used by young people sailing, by High School Rowing Teams and by young people using motor boats.

10) How can Congress justify destroying a beautiful river when people enjoy sitting on benches and viewing the scenery.

"The Interest We Show Will Give Us The Type of Community We Deserve"

Commissioner
PETER J. RUSSO
Director of Department of Parks
•
RICHARD PIZZUTI
Superintendent of Parks



TOWN HALL

RUTH A. WOERTZ
Secretary
•
MARY ANN LA POLLO
Administrative Clerk

OFFICE OF THE DIRECTOR
Department of Parks and Public Property
250 Cleveland Avenue
Township of Lyndhurst, New Jersey 07071
Phone: (201) 438-0000

11) How can Congress justify the Army Corp. of Engineers allowing Wayne and all the Towns to build in a Flood Area.

12) How can Congress justify the fact that the Army Corp. of Engineers has not or made any attempt to clean the Passaic River or any of the Rivers in the State of New Jersey.

This is why we have a dirty Ocean.

13) How can Congress justify the Army Corp. of Engineers not getting rid of sunken barges that break up and end up on the beaches from Sandy Hook to Cape May, New Jersey for the last forty (40) years.

14) How can Congress justify members of Congress in the Passaic and the Hackensack River Area not doing something constructive in cleaning the dirtest rivers in the country.

15) How can Congress justify a Congressman in our area, who has completely confused the people in this District, one year he is for the Tunnel, the next year he is against the Tunnel and then on the fence for the rest of the time.

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1) The first flush from the Tunnel is expected to contain sediments, decaying fish and other debris that would enter the Tunnel during flood events. This would degrade the water quality in the lower Passaic River and the Newark Bay Area.

2) The proposed leeves and Floodwalls to be constructed at the waters edge will deprive the public of acess to the River and hinder the view not to mention the flooding problems we will have due to a higher River elevation.

3) The concept of the plan seems to be transferring the flood-water from the upper Passaic Basin to the lower Passaic Basin instead of solving the problems at the source.

4) The Tunnel, levee and dike plan will require long term maintenance which the municipalities will have to pay for.

   A buyout plan may have a higher initial cost, but there is no long term maintenance involved.

5) The Tunnel construction will require acess shafts for removal of soil and rock from the Tunnel.

   The construction will be disruptive to the lower Basin Area.

During the last nine (9) months I have been Chairman of Cleaning up the entire Passaic River. With the cooperation of all the Towns along the Passaic River we have taken over 300 trucks loads of dead trees and garbage.

The Clean-Up Committee in Lyndhurst headquarters and all of the Towns boarding the Passaic River want to and will restore this beautiful River to a fishing river, a boating river, a sailing river, for our young people and senior citizens.

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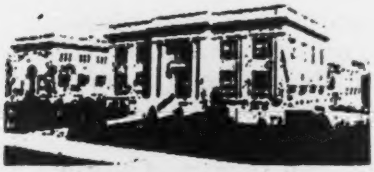

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-2-

Sanitation is a way of life. It is the quality of living that is expressed in the clean Rivers, the clean Business and the clean Neighborhood and the clean Oceans.

Please do not fool around with "Mother Nature". The beautiful Passaic River was there before you and I were born.

Lets keep it there for "Natures Sake".

Peter J. Russo
PETER J. RUSSO

Mar. 5.90 12:35 P.02

Mr. NOWAK. The subcommittee will come to order.

We'll continue with our witnesses if everybody will take their seats and if we could have the doors in the halls closed so we can hear our witnesses.

We'll turn now to Vincent Frantantoni, Commissioner of the Township of Belleville.

Vincent, you may proceed at your pleasure.

I might just add to all the witnesses, we have, of course, the voluminous testimony which has been submitted on behalf of some of the witnesses already, and we'll join that with the other submissions for our files as they come in.

We'll ask you if you can to sort of summarize the main points as you see them, I know a lot of the same points, you know, can be made over and over again, and I think if we could join some of those points, and then if you have other significant testimony you'd like to bring just to our attention at this meeting, I'd appreciate it.

The other point I'd like to make is that, as our review goes along, we will take the opportunity to leave the record open for any submissions you'd like to make in the future as more information is gathered and progress is made on this particular project.

Vincent, would you like to go ahead now?

TESTIMONY OF VINCENT FRANTANTONI, COMMISSIONER OF PARKS AND PUBLIC PROPERTY, BELLEVILLE, NJ

Mr. FRANTANTONI. Thank you, Mr. Chairman and members of this honorable committee, for allowing me to speak before you today.

My name is Vincent J. Frantantoni, I'm Commissioner of Parks and Public Property in the Township of Belleville, New Jersey.

Our township borders the Passaic River at its lower end. Last year in 1989, we celebrated our 150th anniversary. Our township was founded on the banks of the Passaic River, and until the 1950s, we still enjoyed lovely riverside parks.

In fact, today our high school rowing teams still continue to use the Passaic River. The construction of massive concrete walls for Route 21 several decades ago destroyed most of Belleville's riverfront, and now today we are threatened with dikes and flood walls that would seal our township off from even a view of the Passaic River.

In the Wayne area, there has been a tremendous amount of development in wetlands and flood prone areas that should never have been allowed to take place.

This development has taken an overwhelming amount of our open spaces which are a necessary ingredient in the balance of nature.

The loss of this ground space to absorb water contributes to the loss of many trees in our urban areas because their roots are dying of thirst.

How ironic that this should happen in New Jersey. It appears our large volume of rainfall each year is not properly managed.

We have taken the initiative in Belleville to try to solve some of the wrongs of the many decades that preceded us. Two years ago, we reduced our zoning density in Belleville from 25 units per acre to 16 units per acre, because we realized that New Jersey is a highly developed State, I believe it's the most densely populated State in the Nation, I remember reading statistics, I believe, we're more densely populated than India.

So we took the initiative to try to control that in our township. We hope that that starts to become the policy in many other townships, especially in the Wayne area.

It's a shame to watch our Passaic and Second Rivers overflow their banks, bringing their valuable cargo, water, downstream into Newark Bay and into our ocean.

These millions of gallons of water never had a chance to be absorbed into the ground because we've covered most of the land with buildings, asphalt or concrete.

The Army Corps of Engineers now proposes a flood tunnel which will confuse and upset the ecological system even more. The testimony heard today, I heard several references to the flood of 1903.

That seems to be the biggest one that everybody keeps referring to, and I wonder if some of the things we've done over the years, such as in some of this development we've added storm sewers, possibly has eliminated or reduced the possibility of that type of storm happening again.

So we may have already started to solve the solution. I and the residents of the other downstream communities sympathize with the residents of the communities in the Passaic River Basin.

The construction of a flood tunnel, however, will not solve their problem. It would simply transfer it to another area.

Something we think that they should know, many of these people are homeowners, and if they're in their 40s or 50s or 60s, whatever age, they're not looking at relief in the near future.

They're looking at relief 15, 20 or more years down the road, if at all. There's documentation to prove that. The New York flood tunnel is long overdue. They started in 1971, and they're still not complete.

The projected cost of $1 billion is also not an accurate figure, gentlemen. The $879 million that President Bush recommended did not take into account this additional cost of the Newark Bay extension, which at 1987 or 1988 figures, I believe, was estimated at $300 million to $400 million.

So we're looking at a project, in 1987 figures, of $1.2 billion, and no one can accurately anticipate the problems that will occur during the actual construction, especially when it will take over two decades to complete.

The maintenance of this tunnel will cost in the hundreds of millions of dollars, if, in fact, maintenance of this monster will be possible or even practical.

I'm very sad to see that this was not addressed prior. The maintenance of this tunnel is something that Congress hasn't even addressed, Congress will not fund, it will fall back on the State and the local municipalities not for one year, not for 10 years, not for 20 years, during the construction, but for eternity, gentlemen.

There are flood walls, there are dikes, there is the tunnel itself, there are the pumps and all the other mechanical parts to this plan that must be maintained forever.

That is a cost that nobody has even addressed yet, but it's in the hundreds of millions of dollars for eternity. The Army Corps of Engineers intends to have these maintenance costs borne completely by the State of New Jersey and its municipalities.

The State has maintained that these costs will be shared by local municipalities. As an elected official on the municipal level, I can tell you unequivocally that we can never assume these added unnecessary costs.

We are presently struggling to raise funds to maintain our present road, sewer, and water systems. One week ago, our little township just had a road inventory report done, and the engineers' estimates at today's costs are $6.4 million to repair the roads in our township that are in poor condition.

The Federal Government has exceeded its ability to assist State and local Governments, as witnessed by the recent demise of the Federal Revenue Sharing Program and the elimination or reduction of many other monetary assistance programs.

In New Jersey, our new Governor is facing a $550 million shortfall in our 1990 budget. Some of the absurd solutions for closing this gap are to raise the sales tax, raise the income tax, raise the gasoline tax.

These actions, if implemented, will chase many of our residents and businesses and industries from our once great State.

Clearly, the Corps of Engineers' plan is economically impossible. The answer is to stop development in the flood prone areas.

Set up this buy-out fund for the homes in the affected areas and return these areas to their original state, natural wetlands.

The corps tunnel plan would place a financial drain on our State forever. The buy-out plan, on the other hand, would create demand for substitute housing which would produce ratables to offset the cost.

The answer is simple. What is needed now is the resolve on the part of our decision makers not to succumb to greed and to continue to allow this poor planning to destroy our beautiful State.

I have seen homes and businesses in our town engulfed in flood waters on a yearly basis, several times a year, and we have pictures with us today, gentlemen, to document that fact, and I wonder if the people who allowed this development in our wetlands are proud of what they have done?

Congressman Roe was the mayor of Wayne when much of this development took place in the Wayne area.

Mr. ROE. Just a moment, sir. That is not an accurate statement, and I know you wouldn't want to make an inaccurate statement.

When Bob Roe was mayor of the Township of Wayne, if the gentleman would yield, we went to the courts and we passed an ordinance prohibiting any building in the flood plain whatsoever.

The Supreme Court of the State of New Jersey struck that ordinance down, and I know you'd appreciate that, and said you could not confiscate private lands unless you were to pay the people for the lands.

We passed another ordinance, and we allowed them to build at the 1903 flood level of the floor. Practically none of the homes that you're speaking of, every one of them were built before that time.

These are the old areas up in Lincoln Park and in Pompton Plains and Wayne before I was even born. So let's get that straight.

I know you wouldn't want to say something that's not accurate, but that just is simply not true.

Mr. **Frantantoni.** Okay, Congressman. I commend you for your efforts when you were mayor to try to stop this development.

Mr. **Roe.** That's right. The Supreme Court struck us down.

Mr. **Frantantoni.** The Planning and Zoning Boards are responsible for allowing this, but in reference to your statement about the older homes that were built in the 1920s in the Lincoln Park area, we're also well aware of that, and I have some neighbors who have family up there.

At that time, those people chose to build basically almost directly in the river, because they were summer residents, and they loved to go fishing, so they chose to build on the river, and now we're faced with the fact that we in the downstream communities must bail them out when they jumped in the river of their volition.

Mr. **Roe.** Well, I would say 95 percent of those people, sir, Commissioner, if I may make the point, 95 percent of those people, at least, never lived in those areas before.

These are all new people that bought houses. They shouldn't have sold them to them. I agree with you. But nevertheless, they were not people that were there 35 years ago. They're still not there.

Mr. **Frantantoni.** Exactly, Congressman, but we're talking about the original construction. The original construction in those areas were built for recreational summer and fishing residences.

Mr. **Roe.** You're absolutely correct.

Mr. **Frantantoni.** So we have to take it from that perspective. If these poor people in this room and in the Wayne area subsequently bought in that area, and maybe or maybe they were not told by the real estate agents or the developers what they were getting into, then I sympathize with them, and we'd like to help them, and we would like to help them with the buy-out plan.

They must know that we are their friends. The buy-out plan will help them immediately. The day after the buy-out plan is instituted, those funds would become available, and anyone wishing to relocate can move the next day or as soon as the closing can be arranged, contrary to their having to wait 10, 20 or 30 years for the construction of this tunnel to give them relief, if it's going to give them relief, and that has not been proven to everyone's satisfaction, and if the Army Corps of Engineers is correct, and if they're plans are correct, and if they can design the extension in a reasonable period of time.

We can go back, I have a summer home in Pennsylvania, and my neighbor was a victim of the aborted Cox Island Dam, when the Army Corps of Engineers created another fiasco up there, and they took this gentleman's home which took him 15 years to build, and he had to relocate, and a year after they relocated, they abandoned the project.

So the Army Corps of Engineers has a history of irresponsible actions.

I think I may have just covered this written statement in what I just said, so it will be redundant, but the flood tunnel, if it were practical, would provide only minor temporary relief for the Wayne area, while it wreaks havoc on the lower communities for eternity.

As I said, the buy-out plan would provide immediate relief for these people, and we'd be willing to sit down with these people and explain to them that they are being duped into this Newark Bay extension.

With regard to the Newark Bay extension, it is our belief in the lower basin that this Newark Bay extension has been getting more support from the Congressmen in the last year or two because of the increasing opposition to this flood tunnel.

It is our belief that this plan is a ploy, a ploy to get support for the construction of this tunnel and to get the tunnel started.

Once the tunnel is started, there may be a possibility of saying that it's economically or practically impossible to go the other five or six miles to Newark Bay, and therefore we must continue to see the project through fruition with the outlet at the Nutley/Clifton border.

Mr. ROE. Let me just make a point. I say this in front of everybody in this room. Bob Roe will not vote for any project that doesn't go to the Newark Bay.

I think it's very, very wrong for you to question the integrity of the people involved in both political parties that we would participate in some kind of a ruse of that nature.

It's a little bit late in life for me to not be honest with my people. That would never happen, because we won't let it happen.

Mr. FRANTANTONI. Congressman, we have to look at the facts. About a year or year and a half ago, Senator Butler, from New Jersey, held a meeting at Passaic Valley High School.

At that time, and I have his proposal in my file here, at that time he proposed that the State of New Jersey create yet another independent authority, and he suggested allocating $75 million for this independent party to oversee the Passaic River.

At that time, you may recall, we were fighting the absurd increase on the Garden State Parkway Toll by another independent authority.

I told him, I said, we do not need another independent authority. However, if you're willing to put up $75 million to fund another bureaucratic arm of Government, why not put this same $75 million and give these people in Wayne immediate relief with a buy-out plan?

His independent authority never went anywhere, neither did he come up with the $75 million to assist these people. So when I talk about ruses, I can give you many other documentations where public officials have given us one proposal and then switched to another. The old switch and bait.

The extension to Newark Bay is also going to have a severe impact on the city of Newark, who is in the process of revitalizing that town, and they've made major strides in recent years.

They just had several major projects completed. They have an anticipated present project, their riverfront project. I hope this committee realizes that the extension to Newark Bay still requires flood walls and levees, and the information that we have and the documentation that we've seen is that these flood walls and levees would go from the Second River south to Newark.

The Second River is the border line between Newark and our township of Belleville. So the statement that the tunnel extension to Newark Bay is only going to create a rise of two inches in Newark Bay and maybe led some of you committee members to think that there was the elimination of all floods and dikes and walls, that's not true.

In our neighboring township of Nutley, New Jersey, there is a major pharmaceutical firm, I'm sure you all have heard of Kauffman-LaRoche, a major taxpayer and contributor to Nutley's economy.

This pipeline goes directly under their property. They have threatened to move out of Nutley should this tunnel be built.

The initial cost now from $1 million to $1.5 million, when you add these together, because this is going to be a bonded project, with the bonding of this thing, we have no estimates of the absurd actual tax dollars that will be drained from our pockets.

The recent savings and loan bail out, we've been reading recently in the past two weeks that that's running into problems. This is another project that Congress approved recently.

This tunnel plan will be another boondoggle that puts this country further in debt.

In summation, gentlemen, I'd just like to tell this committee that to continue the design and to debate the construction of this flood tunnel would serve no purpose other than to transfer valuable tax dollars from our pockets to engineers, consultants and attorneys.

So we urge you to commence plans for this buy-out plan and give these people immediate relief and save us the perpetual costs that this tunnel project will create.

Thank you for allowing me to speak before you, and I wish you would consider our proposals.

Mr. NOWAK. Thank you very much.

[Mr. Frantantoni's prepared statement follows:]

DEPARTMENT OF PARKS & PUBLIC PROPERTY
MUNICIPAL BUILDING
BELLEVILLE, NEW JERSEY 07109
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PARKS
RECREATION
PUBLIC BUILDINGS
MUNICIPAL STADIUM
UNION AVENUE HONOR ROLL
PUBLIC PARADES &
DEMONSTRATIONS

VINCENT J. FRANTANTONI
DIRECTOR

Sub Committee on
Water Resources of the House Public Works Committee
Rayburn Building
Washington D. C.

My name is Vincent J.Frantantoni, Commissioner of Parks and Public Property, in the Township of Belleville, New Jersey.

Our Township borders the Passaic River at its lower end. In 1989, we celebrated our 150th Anniversary. Belleville was founded on the banks of the Passaic River and until the 1950's, we still enjoyed lovely riverside parks.

The construction of massive concrete walls for Route 21 destroyed most of Bellevilles' riverfront. Now we are threatened with dikes and floodwalls that would seal our township off from even a view of the Passaic River.

In the Wayne area, there has been a tremendous amount of development in wetlands and flood prone areas that should never have been allowed. This development has taken an overwhelming amount of our open spaces, which are a necessary ingredient in the balance of nature.

Loss of ground space to absorb water, contributes to the loss of many trees in our urban areas, because their roots are dying of thirst. How ironic this should happen in New Jersey. Our large volume of rainfall each year is not properly managed.

What a shame it is to watch our Passaic and Second Rivers overflow their banks bringing their valuable cargo "water" downstream into Newark Bay and into our ocean. These millions of gallons of water never had a chance to be absorbed into the ground because we have covered most of the land with buildings, asphalt, or concrete. The Army Corps of Engineers now proposes a flood tunnel which will confuse and upset the ecological system even more.

I sympathize with the residents of the communities in the Passaic River Basin, but construction of a flood tunnel would not solve the problem. It would simply transfer it to another area.

The projected cost of one billion dollars is not an accurate figure. No one can accurately anticipate problems that will occur during the actual construction, over two decades.

The maintenance of this tunnel will cost in the hundreds of millions of dollars, if in fact, maintenance of this monster will be possible or practical.

The Army Corps of Engineers intends to have these maintenance costs borne completely by the State of New Jersey. The State of New Jersey has maintained that the costs will be shared by the local municipalities. As an elected official on the municipal level, I can tell you we can never assume these added, unnecessary costs. We are presently struggling to raise funds to maintain our present road, sewer, and water systems.

The Federal Government has exceeded its ability to assist State and local governments, as witnessed by the recent demise of the Federal Revenue Sharing program, and the elimination or reduction of many other monetary assistance programs.

In New Jersey, our new Governor is facing a 550 million dollar shortfall in our 1990 budget. Some of the absurd solutions for closing this gap are to raise the sales tax, the income tax, and the gasoline tax. These actions, if implemented will chase many of our residents and businesses from our once great state. Clearly the Corps of Engineers plan is economically impossible.

The answer is to stop development in the flood prone areas, set up a buy out fund for homes in the affected areas, and return these areas to their original state, natural wetlands.

The Corps tunnel plan would place a financial drain on our State forever. The buy out plan would create demand for sub
The answer is simple! What is needed, now, is the resolve on the part of our decision makers not to succumb to greed and continue to allow poor planning to destroy our beautiful state. I have seen homes and businesses engulfed in floodwaters, and I wonder if the people who allowed this development in our wetlands are proud of what they have done.

substitute housing which would produce
Rotables to offset Cost

The flood tunnel, if it were practical, would provide only minor, temporary relief to the Wayne area, while wreaking havoc on the lower communities for eternity.

The buy-out plan would provide immediate relief for those who desire to re locate.

On behalf of the Township of Belleville New Jersey and our neighboring communities, I plead to this committee to abandon this irresponsible and impractical project.

To continue to design and debate the construction of this flood tunnel would serve no purpose other than to transfer valuable tax dollars from our pockets to engineers, consultants, and attorneys.

Respectfully submitted,

Vincent J. Frantantoni

Vincent J. Frantantoni
Commissioner

Mr. **Nowak**. We will try to move further without a lot of discussion about other things. You know, I could go on about the Federal deficit and talk about the amount of dollars we spend for defense instead of for these kinds of programs, but we'll have to move along to accommodate others who haven't been given the opportunity to speak yet.

There are about seven or eight other people who aren't even at the desk yet, so we've got another 15 or 20 people to go, and if anybody has to catch a bus, we're going to start missing all that testimony.

I don't want to just accept records. I would like at least to give you the opportunity to speak and somehow summarize, if you can, in some manner, and we will, believe me, take the time to go through all your testimony to be able to respond to anything further in the future.

So with that, let's turn to Mary Donohue, member, Board of Chosen Freeholders, Bergen County.

Mary.

TESTIMONY OF MARY DONOHUE, MEMBER, BOARD OF CHOSEN FREEHOLDERS, BERGEN COUNTY, NJ

Ms. **Donohue**. Thank you, Mr. Chairman.

I am a member of the Board of Freeholders in the County of Bergen, New Jersey, a county of 840,000 residents.

I respectfully differ with the views of Congressman Roe. It is evident that the opposition to this tunnel plan has strong bipartisan support.

The problem of Passaic River flood control has been investigated and has been a source of local agitation since colonial days.

The problem to the people living in the upper reaches of the basin is here and now. They live daily with the threat of crippling floods, and the tunnel plan provides no relief to their ongoing problem.

To be regularly faced with the genuine possibility, let's make it a likelihood, of having to leave their homes and property in the wake of a flood can only have the most depressing impact on their daily living.

On page 54 of the October 1948 survey report for flood control of the Passaic River, these words appear. "In this section comprising the communities of Lincoln Park, Wayne, Pequannock, Pompton, and Pompton Plains, a heavy fringe of one-story cottages has been built along the low river banks, practically in the bed of the stream. The slightest pressure inundates these properties."

Through the years some improvement has been made by removing some of those most at risk, but the cruel problem does not go away, nor will the proposed flood tunnel prove helpful at this time.

In the past 22 years, towns in northeastern Morris and western Passaic have been declared federal disaster areas, in 1968, 1971, 1972, 1973, twice in 1975, and in 1984.

Arithmetically, that comes out to once each three years. Now, should the tunnel get underway in 1995 and reach completion in the year 2004, those families and homes at risk will have to endure another 15 years of courting disaster.

It is they who need massive help and help now. In the final environmental impact study, treatment of basin-wide, non-structural plans for structures which would suffer significant flooding, the 10-year level of protection plan would flood proof 10,000 structures, raise 732 above the flood line, and permanently evacuate 76, at a cost of almost $190 million, according to the EIS report.

Longer term protection plans would need to be considered, but even those would not approach the projected cost of the flood tunnel, nor would they result in the river long havoc that the proposed tunnel construction would wreak on the citizens of many New Jersey towns along the river's path.

What affect will the tunnel have on towns along the Passaic? The EIS study says, in part, using the 109-acre Bergen County Riverside Park complex in Lyndhurst and North Arlington, as an example, under existing conditions, walking through most parts of the park affords views of the river.

With the project, levees would be built along the riverside and would cover park land so the river would no longer be visible from most parts of the park.

In addition, the aesthetics of the riverside itself would be diminished due to the loss of vegetation that fringes the river and includes many large old trees.

Among the Bergen County parks affected by the flood tunnel are Riverside Park in North Arlington and Lyndhurst and seven municipal parks in Rutherford, North Arlington and Lyndhurst.

The tunnel plan totally disregards concern for the environment. The ultimate solution of the all-to-frequent tragic and costly flooding of the Passaic River Basin will require, in my view, the talents of a Solomon or many Solomons.

Let's take care of what we must do first and continue to examine other, hopefully more viable, options. However, I am strongly opposed to the construction of a flood tunnel, which is an unproven solution to this problem.

Thank you, gentlemen, for the opportunity of addressing you.

Mr. NOWAK. Thank you very much.

[Ms. Donohue's prepared statement follows:]

STATEMENT OF MARY DONOHUE, MEMBER, BOARD OF CHOSEN FREEHOLDERS, BERGEN COUNTY NEW JERSEY

Mr. Chairman, My name is Mary Donohue, and I am a member of the Board of Chosen Freeholders in the County of Bergen. While I am the newest member of this Board, I am pleased to state that the opposition to this tunnel plan has strong bi-partisan support.

The problem of Passaic River flood control has been investigated and a source of local agitation since Colonial days.

The problem for the people living in the upper reaches of the Basin is here and now--they live daily with the threat of crippling floods and the tunnel plan provides no relief to their on-going problem. To be regularly faced with the genuine possibility (lets make that likelihood) of having to leave their homes and property in the wake of a flood can only have the most depressing impact on their daily living.

On page 54 of the October Survey Report for Flood Control of the Passaic River these words appear"In this section comprising, the communities of Lincoln Park, Wayne, Pequannock, Pompton and Pompton Plains, a heavy fringe of one story cottages has been built along the low river banks practically in the bed of the stream. The slightest freshet inundates these properties...through the years some improvement has been made by removing some of those most at risk, but the cruel problem does not go away. Nor will the proposed flood tunnel prove helpful at this time.

In the past 22 years towns, in northeastern Morris and western Passaic have been declared federal disaster areas-1968,1971,1972,1973, twice in 1975 and in 1984--arithmetically that comes out to once each three years. Now, should the tunnel get underway in 1995 and reach completion in the year 2004, those families and homes at risk will have to endure another 15 years of courting disaster.

It is they who need massive help, and help now!! In the final Environmental Impact Study, treatment of Basin-wide nonstructural plans, for structures which would suffer significant flooding, the 10 year level of protection plan would flood proof 10,000 structures, raze 732 and permanently evacuate 76, at a cost of almost $190 million. Longer term protection plans would need to be considered, but even those would not approach the projected cost of the flood tunnel, nor would they result in the river long havoc that the proposed construction would wreak on the citizens of too many New Jersey towns.

And what effect will the tunnel have on towns along the Passaic?

The EIS study says, in part - "Using the 109 acre B.C. Riverside Park Complex in Lyndhurst and North Arlington as an example , under existing conditions, walking through most parts of the park affords views of the water. With the project levees would be built along the riverside and would cover parkland, so the river would no longer be visible from most parts of the park. In addition, the esthetics of the riverside itself would be diminished, due to the loss of the vegetation that fringes the river and includes many large old trees. Among the Bergen County parks affected by the flood tunnel are Riverside Park in North Arlington and Lyndhurst and seven municipal parks in Rutherford, North Arlington and Lyndhurst."

Ladies and Gentlemen, this is indeed too high a social price to pay especially when we are casting aside-for at least 15 years, those people who are now in, and will continue to be in, areas of continued distress.

The ultimate solution of the all too frequent tragic and costly flooding of the Passaic River Basin will require , in my view , the talents of a Solomon, or many Solomons. Lets' take care of what we must do first, and continue to examine other, hopefully more viable options.

Thank you.

Mr. **Nowak**. We will go now to Abigail Fair, Association of New Jersey Environmental Commissions. Is that correct, Ms. Fair?

Ms. **Fair**. Yes, that's correct.

TESTIMONY OF ABIGAIL FAIR, ASSOCIATION OF NEW JERSEY ENVIRONMENTAL COMMISSIONS

Ms. **Fair**. Thank you very much for the opportunity to speak to you.

The Association of New Jersey Environmental Commissions is a non-profit organization founded to provide education and information to environmental commissions and public officials throughout the State of New Jersey.

We encourage and promote wise land use and environmental protection. ANJEC, which we call ourselves for short, strongly objects to the dual inlet tunnel plan.

You have the full testimony of the organization, and I think the only added bit of information that hasn't come out today is the yearly annual costs that it would cost the taxpayers of this country to finance this tunnel.

To pay for the capital and interest, it would cost nearly $80 million a year, every year, over 100 years. We also believe that the cost benefit analysis performed by the corps was flawed.

It did not include the maintenance and operation costs, it did not include the long term capital and interest costs as I just mentioned, it did not take into account the value of the over 900 acres of freshwater wetlands that the tunnel would destroy, it did not have a price for the cost of mitigating the loss of the wetlands, because they still haven't been able to come up with a mitigation plan for that loss.

No price was placed on catastrophic costs of intensification of residential and commercial use in the flood risk area should failure or malfunction of the tunnel occur.

It also did not consider the extreme hardship placed on taxpayers of the State of New Jersey, as well as added hardship to municipalities who have to pay for the local share of a plan whose completion is not expected for many more years.

ANJEC is extremely concerned by the environmental implications of the plan. It will result in severe impacts to water quality, water supply and open space in New Jersey.

The tunnel would destroy, as we said, over 900 acres of wetlands in direct contradiction to the federal policy on wetlands preservation.

In addition, because of its interference in the natural process which protect ground and surface water quality in the region, the tunnel will also endanger the safe drinking water supplies of hundreds of thousands of New Jersey residents.

An alternative proposal to extend the tunnel to Newark Bay for an additional $300 million, approximately, has been mentioned.

This proposal does not address ANJEC's concerns with the project's economic and environmental costs. The extension will still cause the same irretrievable losses to New Jersey as a result of conversion of a large river system to what is essentially a giant pipe.

What will this alternative mean to the recently begun Federal Estuaries Program which is in place to improve and rebuild the estuaries in Newark Bay in the New York area?

The Federal Government has already committed large sums to that. What will this alternative mean to the efforts at reviving the Newark waterfront? How much more time will this alternative take to study?

If approved, the dual inlet project will continue the delay relief to flood victims. ANJEC supports flood relief that is achievable sooner, that is more economically and environmentally sound.

We also support a reasonable buy-out, but the buy-out must be accompanied with the prohibition of loss of anymore Passaic River wetlands, with the restoration of as much degraded wetland area as possible, which will be possible if there is a buy-out, and we recommend strong land use be put in place with strict storm water control measures in the basin.

This will be possible, and perhaps it will be forced under the EPA program to control non-point source pollution. So more Federal funding is going into that program, which would help this situation.

The tunnel plan does not have any of its Federal 404 permits, it does not have its State freshwater wetlands permit, it does not have an adequate mitigation plan.

ANJEC therefore urges this subcommittee to reject the dual inlet flood tunnel, to recommend suspension of funding for the tunnel's design, and to recommend buy-out and relocation for flood victims along with strong land use controls geared to working with natural systems at low costs.

One final little note. Executive Order Number 11988 directs all federal agencies to provide leadership and take action to reduce risk of flooding and flood loss, and primarily, not primarily, but in my eyes, to restore and preserve the natural and beneficial value served by flood plains.

The Army Corps has done this in other areas. They did it in Massachusetts in the Charles River very successfully. It is not impossible to do.

Again, ANJEC strongly urges you to provide the leadership needed for a sensible, humane flood control plan. Thank you very much.

Mr. NOWAK. Thank you very much.

[Ms. Fair's prepared statement follows:]

anjec
association of new jersey
environmental commissions

PASSAIC RIVER DUAL INLET TUNNEL DIVERSION
TESTIMONY
March 14, 1990

Water Resources Subcommittee of the Public Works Committee
House of Representatives

My name is Abigail Fair. I am here to present testimony on behalf of the Association of New Jersey Environmental Commissions' 2000 members and trustees.

ANJEC strongly objects to the dual inlet tunnel plan. It is neither economically nor environmentally sound. It will cost the federal, state and local government over $1,000,000,000 to build and several millions each year to operate and maintain. If funds were borrowed at the federal interest rate, annualized costs to the public of financing this $1 billion would be a minimun of $80 million a year over 100 years to pay back the principal plus interest. Furthermore, the Corps has projected that residual flood damages of an estimated $1 million per year will continue.

The cost/benefit analysis performed by the Army Corps of Engineers is flawed because it does not:

- include the long-term capital and interest costs or maintenance and operation costs;
- take into account the value of over 900 acres of freshwater wetlands that the tunnel will destroy;
- have a price for the cost of mitigating the loss of the wetlands because a mitigation plan still has not been formulated;

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- place a price on catastrophic costs of intensification of residential and commercial use in the flood risk area should failure or malfunction of the tunnel occur;
- consider the extreme hardship placed on taxpayers of the state of New Jersey as well as added hardship to municipalities who will have to pay for the local share of a plan whose completion is not expected for some twenty to thirty years.

ANJEC is extremely concerned by the environmental implications of this plan. It will result in severe impacts to water quality, water supply and open space in New Jersey. The tunnel would destroy over 900 acres of wetlands in direct contradiction to the federal policy on wetlands preservation. In addition, because of its interference in the natural processes which protect ground and surface water quality in the region, the tunnel will also endanger the safe drinking water supplies of hundreds of thousands of New Jersey residents.

An alternative proposal which some people support, is to extend the tunnel to Newark Bay for an additional $300,000,000. This proposal will not address ANJEC's concerns about the project's economic and environment costs. The extension will still cause the same irretrievable losses to New Jersey as a result of conversion of a large river system to what is essentially a giant pipe. What will this alternative mean to the recently begun federal Estuaries Program including Newark Bay to which both the federal and state government are committing large sums? What will this alternative mean to the efforts at reviving the Newark waterfront? How much more time will this alternative take to study and build?

This dual inlet tunnel project, if approved, will continue to delay relief to flood victims for at least 20 more years. ANJEC supports flood relief that is achievable sooner, that is more economically and environmentally sound. ANJEC supports a reasonable buy-out and relocation program for residents and businesses in the floodway. This buyout must be accompanied by prohibition of the loss of any more Passaic River wetlands, restoration of as much degraded wetland area as possible, and strong land use controls that will put in place strict stormwater control measures in the basin. Re-development of the urbanized areas of the Passaic basin offers opportunities for remedial corrective action.

The inordinant economic and environmental costs and the process of obtaining federal 404 permits, state freshwater wetlands permits, and an adequate mitigation plan to replace wetlands destroyed by the tunnel plan may add years more suffering for flood victims. ANJEC urges this subcommittee to reject the dual inlet flood tunnel, to recommend suspension of funding for the tunnel's design, and to recommend buyout and relocation for flood victims as well as strong land use controls geared to working with natural systems at low costs.

Executive Order #11988 directs that each federal agency shall "provide leadership and shall take action to reduce the risk of flood loss...and to restore and preserve the natural and beneficial values served by floodplains." The Army Corps' successful flood control plan for the Charles River in Massachusetts through preservation of the floodplain and wetlands serves as a model for the Passaic River.

ANJEC strongly urges you to provide the leadership needed for a sensible, humane flood control plan. Thank you for giving the public the opportunity to comment today.

Mr. **Nowak**. We'll turn to Eric Martindale, an Alternative Political Representative of the Northern New Jersey Chapter Sierra Club.

TESTIMONY OF ERIC MARTINDALE, ALTERNATIVE REPRESENTATIVE, NORTHERN NEW JERSEY CHAPTER SIERRA CLUB

Mr. **Martindale**. Thank you.

I am here representing the Northern New Jersey Group of the Sierra Club to voice its opposition to the tunnel and its support of an alternative plan, the buy-out of homes in the floodway.

Unlike most of those here, I do not reside in the drains basin of the Passaic River, but instead in the city of Hackensack, where I serve on the Municipal Environmental Commission.

Thus, I feel my voice is objective, being I don't live in the flood basin. The U.S. Army Corps of Engineers has a history of devastating wetlands with their flood control projects.

They have devastated the Everglades with their drainage improvements to the Kissimee River. They are responsible for the disappearance of hundreds of square miles of fragile wetlands in the Mississippi River Delta because their levees are causing silt to deposit on the Continental Shelf instead of on the Delta itself.

Now they have set their sights on the Passaic River Basin. It's known around the Nation that New Jersey has perhaps the worst environmental problems of any of the States, that the environmental community in New Jersey is ahead of anyone else.

It should mean something to this committee, which is comprised of Congressman from all over the Nation, that the environmentalists of New Jersey oppose this tunnel.

The extension to the Newark Bay has an additional potential of stirring up dioxin-laden sediments that known to be at the basin of the bay, and the increased output into the bay could very well stir that up. That has to be studied.

Even wetlands upstream may be altered as the normal recharge flooding that is critical to the balance of nature in flood plain and wetlands will be diminished or, in some cases, cut off entirely.

These wetlands and ground water recharge areas only recharge about 15 times a year when it floods. That's exactly the number of times the projected tunnel will be used.

Let's not forget the lessons of the Kissimee River. The Army Corps has been under a Congressional directive to study the buy-out plan and other passive options, and they haven't fulfilled that task.

They have just come forth and presented you the tunnel plan. The tunnel proponents point to the preservation of some wetlands upstream and give a very large number, but these wetlands are already protected, it's very important, they are already protected under very stringent State regulations, and, again, New Jersey is the leader on these wetland preservations, and these thousands of acres that they say they're going to preserve can never be developed anyway. It's a moot point.

What is not a moot point is the hundreds of acres of wetlands that will be lost when the tunnel is built. Now, Congressman Torricelli seems to overlook this, and this is the same Torricelli who's promoting the outright development of hundreds of acres of wetlands in Seacaucus, New Jersey.

Another point is that tunnel advocates ignore the fact that this tunnel, the inlets of it, lie in the immediate proximity of the Ramapo Fault, one of the largest on the East Coast.

In fact, the tunnel, I'm not sure, it may even cross the fault. I'm not sure exactly where it lies, but I think a geological study should be taken with regard to whether or not the tunnel could crack, and maintenance costs could be extensive.

Another point is that although the tunnel may save lives, how many people are going to be killed making the tunnel? Large projects, the construction of large bridges and tunnels, people die in construction accidents, and that has to be considered.

In general, the environmentalists of New Jersey support the alternative plan put forth by the Passaic River Coalition. This plan is far cheaper and more environmentally sound.

As for the remaining areas where flooding is a nuisance but not a real hazard to life or property, it is not prudent to expend large sums of money to end the flooding.

If the Federal Government intended to solve nuisance flooding everywhere in the Nation, it would have to allocate a good part of the Federal budget.

Keep in mind that the statistics the tunnel advocates are giving regarding the number of homes that are affected by the flooding are mostly homes that are affected by nuisance flooding, not severe hazard flooding, but nuisance flooding.

Those statistics are very deceptive. I don't believe it's a cost effective use of federal tax dollars to expend money the way it is being done.

Hazards are one thing; nuisances are another matter entirely. The buy-out plan depopulates the truly hazardous areas, thus solving the problem of hazardous flooding at a fraction of the cost of the tunnel.

The tunnel plan, on the other hand, goes beyond addressing the hazard flooding. It is an overkill and a potential ecological disaster.

As our last point, in talking to some of the people outside who are supportive of the tunnel, that economically they won't be able to buy back into northern New Jersey, and I don't think that's true.

In the city of Hackensack alone, there are over 500 new vacant condo units, all in good neighborhoods, ranging in price from $80,000 to $140,000.

Let these people come to Hackensack. It's only 10 miles away. A buy-out plan could also include a clause that those relocated get first preference from housing projects anywhere in New Jersey.

That way they can be given the chance, say, if a townhouse is built somewhere in Wayne, and it's a 100-unit townhouse, and 20 of those units are set aside for low or moderate income housing, these people get top priority.

That could be done all across New Jersey. There's no reason that anyone will be driven out.

That concludes my presentation. Thank you.

Mr. NOWAK. Thank you very much.

We'll turn to Herbert J. Cannon, who is the Chairman of the Passaic Valley Ground Water Protection Committee.

Mr. Cannon.

TESTIMONY OF HERBERT J. CANNON, CHAIRMAN, PASSAIC VALLEY GROUND WATER PROTECTION COMMITTEE

Mr. CANNON. Mr. Chairman, I want to thank you and your committee for allowing me to testify here today.

My name is Herbert J. Cannon, and I have the pleasure of having served as Chairman of the Passaic Ground Water Protection Committee for the last eight years.

This committee, unique in the United States, is a multi-municipal entity deeply concerned with the preservation and protection of our ground water resources throughout the Passaic River Basin.

We initiated a petition in 1979 to the U.S. Environmental Protection Agency to have the Central Passaic River Basin Buried Valley Aquifer Systems designated as a sole-source aquifer under section 1424E of the Safe Water Drinking Act.

It was the seventh such designation by EPA, and the first in New Jersey. The Buried Valley Aquifer Systems is the only water supply source for between 800,000 and one million people, and countless commercial and industrial facilities in Morris, Essex, Somerset and Union Counties.

In 1986, our committee published an extensive report on the Buried Valley Aquifer Systems resources and contamination. This report contains not only basic information currently regarding the ground water resources of the region, but it also points out the problems encountered in the past with regard to quality and quantity.

From the documents prepared to justify the Army Corps of Engineers recommendation on the tunnel, no reference or evidence has been presented that an evaluation of impact on the sole-source aquifer has taken place.

Hearings within the past two years before the New Jersey Department of Environmental Protection have raised major questions regarding such issues as safe yield of the aquifer systems, overpumping, recharge, and quality problems.

The State of New Jersey has recently undertaken special geologic studies that begin to shed some light on some of these unanswered questions regarding the hydrogeology of the aquifer systems.

Thus, issues which have been raised with the corps cannot be answered as the geologists are still probing to find the answers.

The Passaic Valley Ground Water Protection Committee developed a policy paper relating to allocation which has been endorsed by the municipal resolutions of a majority of our members.

A primary policy is stated as follows. Aquifers should be managed such that no long term decline in static water levels will occur.

The tunnel plan will over time eliminate recharge to the system and effect a decline in static water levels. Subsistence will occur, and our aquifers will no longer be able to contain the yield we currently enjoy.

The major impact on the hydrologic regimen of the Buried Valley Aquifer Systems will also impact the Highlands Aquifer Systems, which is another sole-source aquifer above the intake in Pompton Lakes.

When dealing with water resources, it must be recognized that everything is interrelated. The Passaic River watershed is a major water supply for the people of northern New Jersey.

To date, the reservoirs which have been built to transfer water from one part of the basin to the urban areas have not been detrimental to the towns in which they are located, because adequate ground water resources exist.

According to information we have received from the corps, the tunnel will be used to deal with the one year storm or greater, estimated to be in operation approximately 15 days per year average.

Because of the detrimental long term effect the operation of this tunnel will have on ground water resources, it should not be authorized.

Mr. Chairman, we have raised the impact on ground water many times and have received assurances from Congressional representatives that these matters would be addressed.

However, aside from one-line responses in corps documents, never has the corps or anyone else supporting this project provided us with any documentation which shows that no impact on our ground water resources will occur.

The Corps' response is that they will be lining the tunnel to prevent ground water inflow. However, our questions pertain to loss of recharge over time by the water going into the tunnel and out to the sea.

Mr. Chairman, we sympathize with the people who get flooded in the greater Wayne area; however, building a large pipe to move water out is not the answer.

We support a more comprehensive plan which includes the substantial acquisition of the homes in the flood plain. With current deficits in water supply in northern New Jersey, especially in Morris County, we cannot support a project which throws water away.

The tunnel project is a bad precedent and should not be authorized. Thank you very much.

Mr. Nowak. Thank you.

[Mr. Cannon's prepared statement follows:]

Passaic Valley Ground Water Protection Committee

Presentation before the Water Resources Subcommittee, House Public Works Committee, Washington, D.C., March 14, 1990, Re: Dual-Inlet Flood Control Tunnel

Presented by: Herbert J. Cannon, P.E., Chairman

Mr. Chairman, My name is Herbert J. Cannon, and I have the pleasure of having served as the chairman of the Passaic Valley Ground Water Protection Committee for eight years. This Committee, unique in the United States, is a multi-municipal entity deeply concerned with the preservation and protection of our groundwater resources throughout the Passaic River Basin. We initiated a petition in 1979 to the U.S. Environmental Protection Agency to have the Central Passaic River Basin Buried Valley Aquifer Systems designated as a "sole source" aquifer under Section 1424 (e) of the Safe Drinking Water Act. It was the seventh such designation by EPA and the first in New Jersey.

The Buried Valley Aquifer Systems is the only water supply source for between 800,000 to 1 million people and countless commercial and industrial facilities in Essex, Morris, Somerset, and Union Counties. In 1986, our Committee published an extensive report: "The Buried Valley Aquifer Systems: Resources and Contamination." This report contains not only basic information currently known regarding the groundwater resources of this region, but it also points out the problems encountered in the past with regard to quality and quantity. From the documents prepared to justify the Army Corps of Engineers recommendation on the tunnel, no reference or evidence has been presented that an evaluation of impact on the "sole source" aquifer has taken place.

Hearings within the past two years before the N.J. Department of Environmental Protection have raised major questions regarding such issues as safe yield of the aquifer systems, overpumping, recharge, and quality problems. The State of New Jersey has recently undertaken special geologic studies to begin to shed light on some of the unanswered questions regarding the hydrogeology of the aquifer systems. Thus issues which have been raised with the Corps cannot be answered, as the geologists are still probing to find answers.

The Passaic Valley Ground Water Protection Committee developed a policy paper related to allocation, which has been endorsed by municipal resolutions of the majority of our members. A primary policy is stated as follows: "Aquifers should be managed such that no long term decline in static water levels will occur." The tunnel plan will over time element recharge to the system and effect a decline in static water levels. Subsidence will occur, and our aquifers will no longer be able to contain the yield we currently enjoy.

This major impact on the hydrologic regimen of the Buried Valley Aquifer Systems will also impact the Highlands Aquifer Systems, another "sole source" aquifer above the intact in Pompton Lakes. When dealing with water resources, it must be recognized that everything is interrelated. The Passaic River Watershed is a major water supplier for the people of northern New Jersey. To date, the reservoirs which have been built to transfer water from one part of the basin to the urban areas have not been detrimental to the towns in which they are located because adequate groundwater resources exist. According to information we have received from the Corps, the tunnel will be used to deal with the one-year storm or greater, estimated to be in operation approximately 15 days per year (average). Because of the detrimental long term effect the operation of this tunnel will have on groundwater resources, it should not be authorized.

Mr. Chairman, we have raised the impact on groundwater many times, and have received assurances from Congressional representatives that these matters will be addressed. However, aside from one line responses in Corps documents, never has the Corps or anyone else supporting this project provided us with any documentation which shows that no impact on our groundwater resources will occur. The Corps response is that they will be lining the tunnel to prevent groundwater inflow. However, our questions pertain to loss of recharge over time by the water going into the tunnel and out to sea.

Mr. Chairman, we sympathize with the people who get flooded in the Greater Wayne Area. However, building a large pipe to move water out is not the answer. We support a more comprehensive program, which includes a substantial acquisition of the houses in the flood plain. With current deficits in water supply in north Jersey, especially in Morris County, we cannot support a project which throws water away. The tunnel project is bad precedent and should not be authorized.

Mr. **Nowak**. Our last witness in this panel, I believe, is Mr. Paul Butler, from the Office of the Mayor, the City of Newark.

Mr. Butler.

TESTIMONY OF PAUL BUTLER, OFFICE OF THE MAYOR, CITY OF NEWARK

Mr. **Butler**. Thank you, Mr. Chairman and committee members.

Actually, I'm presenting testimony on behalf of the Newark, New Jersey, City Council President, Henry Martinez, today.

On behalf of the Council President, I would like to thank the Chair and members for the opportunity to express the concerns of the residents of Newark.

Mr. **Nowak**. I'm sorry. This is not on behalf of the mayor?

Mr. **Butler**. This is on behalf of the City Council President. They switched at the last minute.

Mr. **Nowak**. Okay.

Mr. **Butler**. I believe the diversion of the Upper Passaic River flood waters to either Nutley or Newark Bay would only relieve the impact of flooding in the Upper Passaic River Basin, while imposing an increased threat of flooding in Newark and other municipalities along Newark Bay and the confluents of the Passaic and Hackensack Rivers.

The construction of miles of dikes along river banks in Newark and these other areas will be costly to build and to maintain.

In addition, these dikes will prevent normal storm water runoff in low lying areas such as the East Ward of Newark, which I represent.

This, in turn, will cause homes, businesses, highways and Newark Airport to face the possibility of prolonged flooding episodes with only extremely expensive methods of remediation available.

I would hope such cost factors are considered seriously by this subcommittee. I also have concern that if this flood tunnel is approved and built that long term maintenance and operating costs will be borne by the local governmental units who are at the receiving end of this tunnel and not by the municipalities who are the sole beneficiaries of this project.

It appears to be another example of Federal and State mandates, whose costs will ultimately be borne by the residents of the municipalities.

I also believe the money that would be used for this tunnel could be better spent by the Army Corps of Engineers in dredging the Passaic River, which would both alleviate flooding in the area of Newark Bay as well as improving navigation for ships and barges which utilize this waterway.

I strongly believe that the most cost effective method of flood control in the Upper Passaic River Basin is a buy-out of the homes which are most seriously affected by flooding, and not by imposing a costly long term solution on municipalities in the Lower Passaic River Basin.

Thank you.

[Mr. Butler's prepared statement follows:]

HENRY MARTINEZ
PRESIDENT-MUNICIPAL COUNCIL
NEWARK, N. J. 07102

733-3665
733-6571

March 14, 1990

Good afternoon, my name is Paul Butler, presenting a statement on the proposed Passaic River Flood Tunnel on behalf of the City of Newark, New Jersey's City Council President Henry Martinez.

On behalf of Council President Martinez I would like to thank both the chair and members of the House Water Resources Subcommittee for affording us an opportunity to express the concerns of the residents of Newark.

I believe that the diversion of the upper Passaic River flood waters to either Nutley or Newark Bay would only relieve the impact of flooding in the Upper Passaic River Basin while imposing an increased threat of flooding in Newark and other municipalities along Newark Bay and the confluence of the Passaic and Hackensack Rivers.

The construction of miles of dikes along the river banks in Newark and these other areas will be costly to build and to maintain. In addition these dikes will prevent normal stormwater runoff in low lying areas such as the East Ward of Newark which I represent. This in turn will cause homes, businesses, highways and Newark Airport to face the possibility of prolonged flooding episodes with only extremely expensive methods of remediation available.

I would hope such cost factors are considered seriously by this subcommittee.

I also have concern that if this Flood Tunnel is approved and built that long term maintenance and operating costs will be borne by the local governmental units who are at the receiving end of this tunnel and not by the municipalities who are the sole beneficiaries of this project. It appears to be another example of Federal and State mandates whose cost will ultimately be borne by the residents of municipalities.

I also believe the money that would be used for this tunnel could be better spent by the Army Corps of Engineers in dredging the Passaic River which would both alleviate flooding in the area of Newark Bay as well as improving navigation for ships and barges which utilize this waterway.

I strongly believe that the most cost effective method of flood control in the upper Passaic River Basin is a buy out of the homes which are most seriously affected by flooding and not by imposing a costly, long term solution on municipalities in the lower Passaic River Basin.

c-K

Newark

Sharpe James
Mayor

Department of Engineering

920 Broad Street
Newark, New Jersey 07102
201 733-8520

Alvin L. Zach, P.E; L.S.
Director

March 16, 1990

Chairman Henry J. Nowak
Subcommittee on Water Resources
Rm. B370A-Rayburn Bldg
Washington, D.C. 20515

Dear Chairman Nowak,

I would like to enter the attached testimony, from Mayor Sharpe James into the record on the proposed Passaic River Flood Tunnel.

Unfortunately, because of scheduling conflicts, the testimony was unable to be presented by Paul Butler at the hearing on March 19, 1990.

Thanking you in advance for your consideration on this very important matter, I remain.

Very Truly Yours,

Alvin L. Zach, P.E.
Director of Department of Engineering

ALZ/dr

SHARPE JAMES
MAYOR
NEWARK, NEW JERSEY
07102

March 14, 1990

Good afternoon, my name is Paul Butler, I am presenting this statement on behalf of Mayor Sharpe James of the City of Newark, New Jersey. I would like to thank the chair and members of the House Water Resources Subcommittee for holding this important hearing today as well as providing the City of Newark this opportunity to present a statement. I would like to make some brief comments on the Passaic River Flood Tunnel Project, as conceived by the Army Corps of Engineers.

Let me begin by stating my opposition to the concept of diverting flood problems from the upper Passaic River basin to municipalities bordering the lower Passaic River. One reason I strongly oppose this flood tunnel project is that the areas, in the vicinity of Newark, already experience severe flooding without the addition of billions of gallons of upstream flood waters. The plan for a tunnel is not a sound approach, especially in low lying municipalities, such as Newark. Municipalities in the lower river basin are currently having difficulty discharging storm waters, particularly at high tide. The diversion of upland Passaic River waters can only exacerbate the flooding in low lying streets and properties in Newark as well as the municipalities in the Lower Passaic River Basin both by increasing the time it takes for the flow to reach the lower river and the increased peak volume.

I also think that for a country with a national debt in the trillions of dollars and for the State of New Jersey, which is approaching a one-half billion dollar deficit for 1990 that this project is unrealistic, impractical and should be terminated as presently proposed.

Without further study on the feasibility of an extension of the tunnel to Newark Bay, and without a plan for proper river diking and facilities in place for storm water pumping, maintenance and operations by some entity other than the municipalities through which it passes, adoption of the tunnel plan as proposed by the Army Corps of Engineers is inappropriate and premature.

It is for these reasons that I support a buy out of the most seriously affected residential properties in the ten year flood plain. This will provide taxpayers with a much more expedient, safe and proven technology to abate ongoing flooding along the Passaic River. The buy out would also return some of these areas in the Passaic River Basin back to wetlands which will improve water quality in this vital water shed. I would also like to bring to your attention that one year's debt service on the capital required for the flood tunnel would be $100,000,000 or approximately the cost of the buy out of homes in the affected areas of the Upper Passaic River Basin.

In conclusion I urge everyone here today to consider and vote for the buy out of flood prone homes and to oppose the flood tunnel project.

Mr. **Nowak**. Thank you very much. We have all of your full statements that we'll be looking at, and you raise some very significant questions, which we'll try either to develop answers for as we go through the present testimony or go back to the corps for more definitive answers to some of the areas that I think you've got valid questions in.

As we move forward, we will probably, I'm sure, have other meetings on this particular issue because of the controversy and the opposition that this has engendered in the community.

Also, of course, we'll be looking forward for new information, perhaps, if there's any different view between the State, which is going to be your "local" participator in this project.

You have a new Governor, I understand, who has been busy and unable to focus particularly on this project, but you have a whole question here of Department of Environmental Control impacts, and hopefully we'll have the time to bring some of that, and I'm sure your individual organizations are going to be talking to some of your State people as well, and we appreciate your taking the time and really showing the interest and the vast amount of work and energy that's gone into each of your testimonies.

Let me now turn to Arlan Stangeland.

Mr. **Stangeland**. Thank you, Mr. Chairman.

I really have no questions. I'm sorry that I couldn't hear all of your testimony, but certainly, as the Chairman says, we will go over it.

I just want to leave one thing with you, and I hear a kind of recurring theme, and that's that the Corps of Engineers are a bunch of bad guys.

You know, Mr. Martindale, let me tell you that the Kissimee River was a tragedy, but the Kissimee River had a local sponsor, and the Kissimee River was authorized by members of Congress because they wanted something done down there.

The corps doesn't go in and willy-nilly do things. It has a local sponsor; otherwise, we don't consider it. It has somebody willing to cost share it.

Now, sometimes those things are wrong, and I'll concede that, but, you know, it isn't the Corps of Engineers that initiates all these things, and, you know, you're quarreling here with a corps solution to a problem, and you have a right to do that.

It may or may not be the right solution, but the corps is not the one who initiates all this stuff. There are some local people who do it or ask for it, and the corps tells them how they'll do it, and if the local people agree that that's the way they want it done, they do it.

Some mistakes have been made, but don't keep pointing a finger at the corps. It's local people who ask for this. But we do appreciate you being here, and we certainly will take under consideration your concerns and comments.

Thank you.

Mr. **Nowak**. Thank you again for coming, and once again, I just want to remind you, we will keep this record open for any further insertions that you can make.

[Additional items relating to the Passaic River, New York and New Jersey follow:]

BOARD OF CHOSEN FREEHOLDERS
COUNTY OF HUDSON

COPY OF RESOLUTION

No. 81-2-1990

On motion of Freeholder Cifelli
Seconded by Freeholder Roman

OPPOSE CONSTRUCTION OF PASSAIC RIVER FLOOD TUNNEL

WHEREAS, the U.S. Army Corps of Engineers has presented a proposal for a 13.5 mile, 39 foot wide flood control tunnel as the only solution to flooding in the greater Wayne area; and

WHEREAS, this tunnel will discharge floodwaters into the Lower Passaic River in Hudson County, completely disrupting the riverfront in Hudson County; and

WHEREAS, excessively high floodwalls and levies will be constructed along the riverfront in Hudson County, denying access to the river for the public and seriously effecting the rehabilitation of the urban and industrial areas of Hudson County, seriously effecting economic growth of the region; and

WHEREAS, a recommendation has been made to further extend the tunnel to Newark Bay, which would place even greater damages onto Hudson County; and

WHEREAS, the costs associated with the tunnel project will exceed $1.5 billion with continued operating costs of over $3 million annually, with a substantial portion being paid by residents of Hudson County, who have done nothing to create the problem; and

WHEREAS, the county and the municipalities do not experience flooding and have no need for such floodwalls and levies; and

WHEREAS, the maintenance of such floodwalls and levies would place an undue burden on the county and municipalities; and

WHEREAS, the operation of the tunnel, which calls for the closing of bridges which cross the Passaic River, would cause untold economic losses on the industries and citizens of northern New Jersey and the greater New York area; and

WHEREAS, the environmental problems of the tunnel plan associated with water quality would doom the Lower Passaic forever in spite of federal laws which call for "fishable and swimmable" river systems; and

COUNTY OF HUDSON

COPY OF RESOLUTION

No.

On motion of Freeholder ______________
Seconded by Freeholder ______________

4. directs that copies of this resolution be sent to President George Bush, Governor Jim Florio, all Members of the New Jersey Congressional delegation, and all Members of the New Jersey Legislature with the request that they do all in their power to stop this ill-conceived project permanently.

I, DANIEL T. SANSONE, Clerk of the Board of Chosen Freeholders of the County of Hudson in the State of New Jersey, DO HEREBY CERTIFY the attached resolution to be a true copy of a resolution passed at a meeting of said Board held on February 22, 1990

Daniel T. Sansone
Clerk

THE ASSEMBLY
STATE OF NEW JERSEY
TRENTON

THOMAS J. DUCH
ASSEMBLYMAN, 36TH DISTRICT
BERGEN-PASSAIC COUNTIES
117 MIDLAND AVENUE
GARFIELD, NJ 07026
201-478-1010

COMMITTEES
MEMBER, ENVIRONMENTAL QUALITY
MEMBER, COUNTY GOVERNMENT AND
REGIONAL AUTHORITIES

March 2, 1990

Chairman
House Public Works Committee
Subcommittee on Water Resources
House Office Building
Washington, D.C.

Gentlemen:

I write to you representing the people of Assembly Legislative District 36, which includes Bergen and Passaic Counties in New Jersey. The flood control proposal before you has neither my support nor the support of my constituents. We do not support the authorization of the dual-inlet tunnel plan in any form whether it discharges at Nutley/Clifton or at Newark Bay.

In formulating this project, the New York District of the Army Corps of Engineers has failed to address the directives found in the consensus statement in the Water Resources Development Act of 1976 Statement, which called for the development of a "flood management program." Taking flood waters from one area and transferring them to another is far from being a management program.

Environmentally and economically, this project is unacceptable.

I have co-sponsored New Jersey Assembly Resolution No. 3 which memorializes the Corps of Engineers to "develop comprehensive and diversified nonstructural alternatives, including acquisition of flood-prone residential structures at greatest risk, flood proofing, and wetlands preservation, to replace the "Pompton-Passaic Rivers Dual Flood Control Inlet Tunnel Diversion Plan." This resolution is presently before the Assembly Conservation and Natural Resources Committee, of which I am Chairman. This resolution will be released soon and should pass the New Jersey General Assembly with a substantial majority.

Chairman
Subcommittee on Water Resources
March 2, 1990
page two

I believe that a floodplain buy-out program is the best manner in which to proceed. Such a buy-out program would produce critically needed parkland and open space in northern New Jersey at substantial savings to taxpayers as it compares to the tunnel plan. I have also sponsored legislation which would fund a residential buy-out in the Passaic River Basin.

I urge the members of this committee to carefully consider the large block of opposition to the tunnel plan in the State of New Jersey and in the State Legislature. Once done, I am confident that along with me, you too will reject this plan as a non-viable federal flood control project.

Thank you for your consideration.

Very truly yours,

Thomas J. Duch
Assemblyman

TJD:sk

ASSEMBLY RESOLUTION No. 3

STATE OF NEW JERSEY

Introduced Pending Technical Review by Legislative Counsel

PRE-FILED FOR INTRODUCTION IN THE 1990 SESSION

By Assemblymen GILL and DUCH

AN ASSEMBLY RESOLUTION memorializing the United States Army Corps of Engineers to ~~study and evaluate~~ formulate comprehensive and diversified nonstructural alternatives, including acquisition of flood-prone residential structures at greatest risk, flood proofing, and wetlands preservation, to replace the "Pompton-Passaic Rivers Dual Flood Control Inlet Tunnel Diversion Plan."

WHEREAS, The United States Army Corps of Engineers has proposed in its "Pompton-Passaic Rivers Dual Flood Control Inlet Tunnel Diversion Plan" the building of a diversionary tunnel to relieve the periodic flooding in the upper Passaic River basin, at the confluence of the Pequannock and Ramapo Rivers and the Pompton and northern Passaic Rivers;

WHEREAS, The diversionary tunnel plan entails the building of a total of 15 miles of underground tunnels 22 to 39 feet in diameter, river modifications of approximately 5.9 miles and construction of 23.7 miles of 8 to 19 foot high levees and 13.6 miles of floodwalls;

WHEREAS, The costs of this structural approach to the upper river basin flooding problem include not only an estimated $1 billion in construction and related costs, one fourth of which must be paid by State of the State and affected localities, but also as yet indeterminate annual operating and maintenance costs, which undoubtedly will fall on the residents of communities along the path of the project, whether or not the communities currently suffer from flooding problems;

WHEREAS, The diversion plan provides for the tunnel to empty into the lower Passaic River basin which may exacerbate some of the existing flooding problems of communities along that part of the river basin in the counties of Essex, Bergen and Hudson;

WHEREAS, The project may also have an adverse impact on the replenishment of ground water in the upper river basin;

WHEREAS, Over 900 acres of freshwater and coastal wetlands will be destroyed or degraded with no realistic mitigation plan possible under federal and state law;

WHEREAS, The project would result in an ~~asymmetrical~~ unacceptable distribution of benefits realized and costs incurred on upper river and lower river basin communities; while lower basin communities would assume a substantial portion of the costs of project operations and maintenance and suffer a loss of developed or undeveloped, public and private riverfront properties required for levee construction, upper basin communities would be spared the currents costs of periodic flood damage cleanups and could reclaim tracts of lands in traditionally flood prone areas for intensive development;

WHEREAS, Even if the rather formidable financing, distributional and other problems were resolved to the satisfaction of all the affected communities, the project would take from seven to ten years to complete, during which time upper basin communities would continue to suffer from periodic flooding;

WHEREAS, A strictly structural solution to the flooding problems of the upper Passaic River basin, particularly of the magnitude of the proposed project, had been repeatedly declared to be unacceptable by many of the affected communities and residents;

WHEREAS, There exist not only less costly but also ecologically less disruptive nonstructural alternatives to the diversionary tunnel project that could almost immediately begin to provide at least partial relief to the residents of the flood-prone upper river basin; now, therefore,

BE IT RESOLVED *by the General Assembly of the State of New Jersey:*

1. The General Assembly of the State of New Jersey memorializes the United States Army Corps of Engineers and the State Department of Environmental Protection to ~~study and evaluate~~ formulate, for submission to the New Jersey Legislature, comprehensive and diversified nonstructural alternatives, including acquisition of flood-prone residential structures at greatest risk, flood proofing and wetlands preservation, to replace the "Pompton-Passaic Rivers Dual Inlet Flood Control Tunnel Diversion Plan" that are less costly and environmentally disruptive, that more equitably distribute project benefits and costs, and that provide more immediate, albeit partial and incremental, relief to flood hazard areas of the upper Passaic River basin.

2. Duly authenticated copies of this resolution, signed by the Speaker and attested to by the Clerk of the General Assembly, shall be transmitted to the President of the United States, the Governor of the State of New Jersey, each member of New Jersey's congressional delegation, the Secretary of the United States Department of Defense, the Secretary of the Army, the Chief Engineer, United States Army Corps of Engineers, the Secretary of the Interior, the Chief of the Fish and Wildlife Service, the Administrator for Region II of the United States Environmental Protection Agency and the Commissioner of the New Jersey Department of Environmental Protection.

STATEMENT

This Assembly resolution memorializes the United States Army Corps of Engineer to ~~study and evaluate~~ formulate comprehensive and diversified nonstructural alternatives, including acquisition of flood-prone residential structures at greatest risk, flood proofing, and wetlands preservation, to replace the "Pompton-Passaic Rivers Dual Inlet Flood Control Tunnel Diversion Plan."

ENVIRONMENT

Memorializes the United States Army Corps of Engineers to ~~study and evaluate~~ formulate comprehensive and diversified nonstructural alternatives, including acquisition of flood-prone residential structures at greatest risk, flood proofing, and wetlands preservation, to replace the "Pompton-Passaic Rivers Dual Inlet Flood Control Tunnel Diversion Plan."

MAR 06 '90 14:43 TREASURERS OFFICE P.2/3

TOWNSHIP OF NUTLEY
DEPARTMENT OF PUBLIC WORKS
NUTLEY, NEW JERSEY 07110

PETER C. SCARPELLI
DIRECTOR

CARL J. ANLAS
MUNICIPAL ENGINEER

(201) 667-2800

March 6, 1990

FAX 202-226-0921
Congressman Novak
Water Resource Subcommittee
House of Representatives
Public Works Commission
D 77
Washington, D.C.

Dear Congressman Novak,

As an elected official in the Township of Nutley, I felt compelled to write to you on behalf of my constituents. We are represented by Congressman Roe, as you know he has supported the Passaic River Dual Inlet Flood Tunnel.

Although he is our representative in Congress, he has not represented our interests in regards to this project. The people in my township do not want this tunnel constructed no matter if the outlet is at the Nutley-Clifton border or extended to the Newark Bay. In either case we feel it will have a negative impact on our community. It is for this reason that I would like to expound upon my difference of opinion with Congressman Roe.

The recent approval by the Bush Administration's Office of Management and Budget to fund the Passaic River Dual Inlet Flood Tunnel is met with much dismay by those communities in the Passaic River's lower basin (Belleville, Lyndhurst, North Arlington, and Nutley.)

Beside the damage this $1 billion tunnel could impose on the lower basin communities. There has been no guarantee that it will provide the relief purported, as the Army Corps of Engineers have never constructed a tunnel on this grand scale before.

The communities in the lower basin have their own flood problems. They are not of the magnitude experienced upstream, but they do pose extreme drainage problems, especially when the Passaic River is at high tide. The Army Corps of Engineers have been unable to solve our problems, so it is with some skepticism that we view their solutions to a much graver situation.

Another factor involved in our opposition is the creation of 9 foot high cement walls to act as levies along the river on both sides. Not only would that eliminate a marina which is critical to emergency and rescue in Nutley, it would also destroy a beautiful park in Lyndhurst, which is situated along the banks.

There are other questions which the Army Corps of Engineers have never answered:

> Who is going to pay for the construction of the pumping stations needed to pump our storm drainage water over the nine foot levies constructed along the river?
>
> Who is gong to pay for the extra police personnel needed to re-route traffic while the Passaic River crossing bridges are raised to accommodate the increase in river elevation?
>
> What happens if the tunnel relieves the problems in Wayne and Lincoln Park, but creates unforeseen problems in Belleville, Clifton, Lyndhurst, North Arlington, and Nutley?

Calculate how many homes could be purchased if this $1,000,000,000 were used for a buyout of the homes in the most flood prone areas, most of which are not marketable with the present conditions.

We in the lower basin empathize with the people in the upper basin. We feel the best solution is a buyout program. We do not want a tunnel that may transfer the excess water, increase our flooding problems, and create construction and maintenance costs to our municipalities. The tunnel and this type of pork-barrel legislation is not the answer.

Commissioner Peter C. Scarpelli
Director, Department of Public Works
Nutley, NJ

GREAT SWAMP WATERSHED ASSOCIATION
P.O. Box 300
New Vernon, New Jersey 07976

March 12th, 1990

Congressman Henry Nowak, Chairman
House Sub-Committee on Water Resources
House Office Building
Washington D.C. 20515

Re: Passaic River Flood Tunnel Plan

Dear Chairman,

The Great Swamp Watershed Association (GSWA) is a non-profit organization committed to protection and conservation of water resources of this watershed which is located in the Central and Upper Passaic River Basin. Covering 55 square miles and including Great Swamp, a large portion is protected by the National Wildlife Refuge.

GSWA is strongly opposed to the Passaic River Flood Tunnel Plan. Our opposition centers around the extraordinary construction and maintenance costs, the loss of wetlands and the alteration and certain destruction of a natural river system.

Proponents argue that the plan is supported by a favorable cost-benefit analysis. Wrong! The analysis does not include two essential factors:

-- the recent Freshwater Wetlands Protection Act (N.J.) does not permit the purchase of wetlands to be factored in;

-- the Plan does not reflect the long-term maintenance and operating costs.

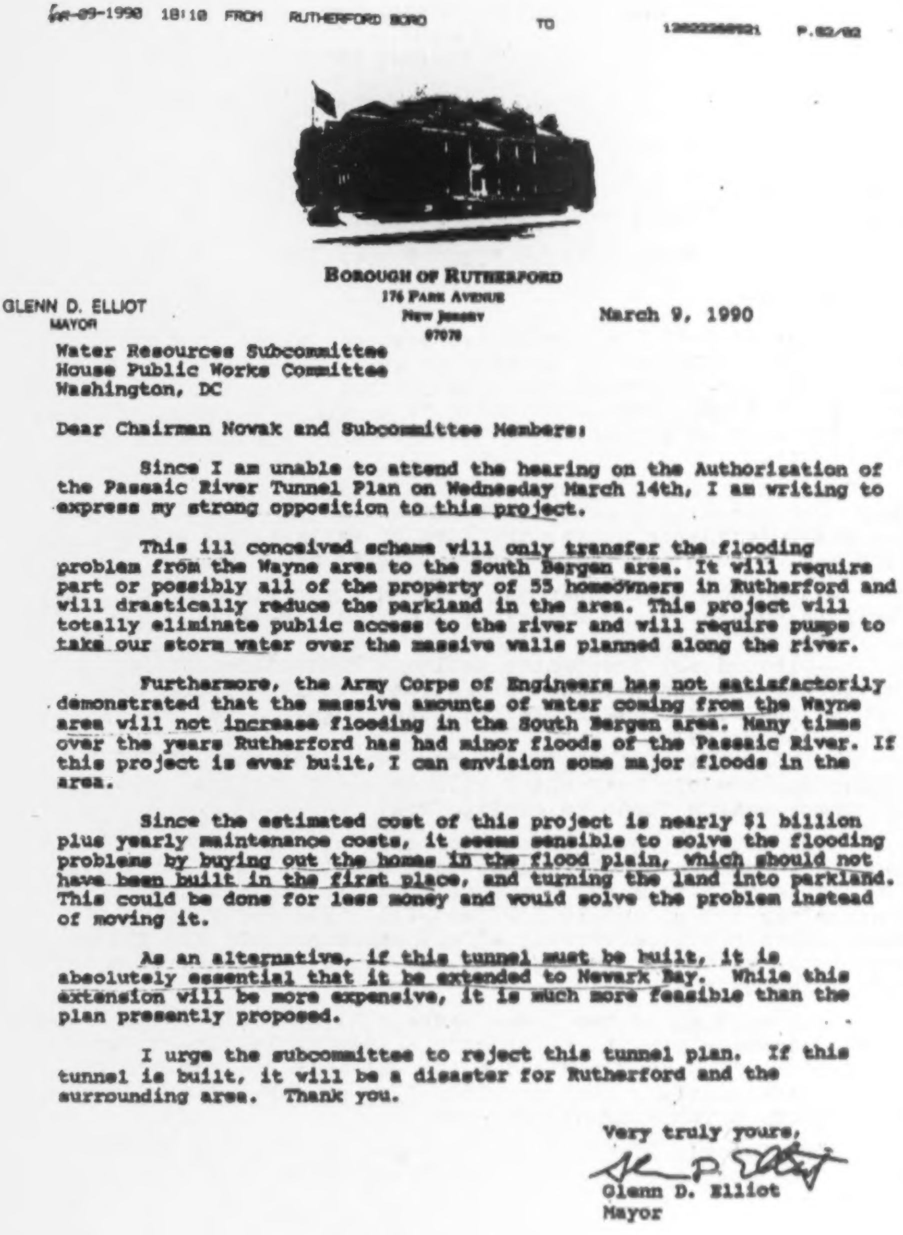
Maintenance of this tunnel has been estimated at 2.1 million dollars per year which will escalate in time. Where will these scarce funds be coming from?

The Environmental impacts of this project have not been adequately addressed. Estimates indicate that 900 plus acres of wetlands will be lost immediately, while ultimately thousands of acres may dry up and be lost as well. The destruction of these wetlands will adversely affect water quality and groundwater recharge areas, endangering the drinking supply of ninety-five communities.

The problem in the Lower Passaic River Basin is not flooding but overdevelopment. We support a reasonable buy-out and the restoration of these floodplains and wetlands so that society may have the benefits they provide, free of cost: flood control and adequate potable drinking water.

The Passaic River, a free-flowing functioning river system, should not be destroyed by billions of dollars of taxpayers money.

Vary truly yours,
Nancy K Hedinger
Nancy K. Hedinger
Chairman, Board of Trustees



MAR-09-1990 18:10 FROM RUTHERFORD BORO TO [illegible] P.02/02

BOROUGH OF RUTHERFORD
176 PARK AVENUE
NEW JERSEY
07070

GLENN D. ELLIOT
MAYOR

March 9, 1990

Water Resources Subcommittee
House Public Works Committee
Washington, DC

Dear Chairman Novak and Subcommittee Members:

Since I am unable to attend the hearing on the Authorization of the Passaic River Tunnel Plan on Wednesday March 14th, I am writing to express my strong opposition to this project.

This ill conceived scheme will only transfer the flooding problem from the Wayne area to the South Bergen area. It will require part or possibly all of the property of 55 homeowners in Rutherford and will drastically reduce the parkland in the area. This project will totally eliminate public access to the river and will require pumps to take our storm water over the massive walls planned along the river.

Furthermore, the Army Corps of Engineers has not satisfactorily demonstrated that the massive amounts of water coming from the Wayne area will not increase flooding in the South Bergen area. Many times over the years Rutherford has had minor floods of the Passaic River. If this project is ever built, I can envision some major floods in the area.

Since the estimated cost of this project is nearly $1 billion plus yearly maintenance costs, it seems sensible to solve the flooding problems by buying out the homes in the flood plain, which should not have been built in the first place, and turning the land into parkland. This could be done for less money and would solve the problem instead of moving it.

As an alternative, if this tunnel must be built, it is absolutely essential that it be extended to Newark Bay. While this extension will be more expensive, it is much more feasible than the plan presently proposed.

I urge the subcommittee to reject this tunnel plan. If this tunnel is built, it will be a disaster for Rutherford and the surrounding area. Thank you.

Very truly yours,

Glenn D. Elliot
Mayor

THE TOWNSHIP OF MILLBURN
MILLBURN, NEW JERSEY 07041

March 7, 1990

Honorable James Florio
State House
Trenton, New Jersey 08625

Dear Governor Florio:

Enclosed is a resolution of the Millburn Township Committee which expresses opposition to the proposed Passaic River Tunnel Plan. The Committee also urges that related ground water studies be completed and that a suggested buy-out/flood management plan be adopted and implemented.

Your attention to this concern will be appreciated. Thank you.

Sincerely,

Lynn Rogers-Eisenbeil

Lynn Rogers-Eisenbeil
Township Clerk

enclosure

c: Honorable William Bradley
Honorable Frank Lautenberg
Honorable Matthew J. Rinaldo
Honorable Maureen Ogden
Honorable Bob Franks
Honorable Donald T. DiFrancesco
Honorable William Reilly, EPA
Honorable Judith Yaskin, NJDEP

0306V011

RESOLUTION TO OPPOSE PASSAIC RIVER TUNNEL PLAN

WHEREAS, the Central Passaic River Basin is subject to periodic, severe flooding with consequent damage to property; and

WHEREAS, to alleviate the flooding the Army Corps of Engineers has recommended the creation of an underground tunnel (the Tunnel Plan) to remove excess water from two critical flood areas and to drain it into Newark Bay; and

WHEREAS, the Tunnel Plan is based upon diverting all flood waters, even those occurring once a year, from an area which is considered to be a vital part of the Buried Valley Aquifer System; and

WHEREAS, the Buried Valley Aquifer System (a sole source aquifer) is recharged from flood waters in the Basin area and, then in turn, provides potable water to Millburn and many other communities; and

WHEREAS, a Buy-Out/Flood Management Plan has been proposed by the Passaic River Coalition as an effective and efficient means of achieving relief from flood damage in the Passaic River basin;

NOW, THEREFORE, BE IT RESOLVED by the Township Committee of the Township of Millburn, in the County of Essex, that it reiterates its October 6, 1987 opposition to the Tunnel Plan, and again urges the Federal and State governments to complete the ground water studies needed to assure that ground water supplies will not be harmed and to adopt and implement the Buy Out/Flood Management Plan; and

FURTHER RESOLVED that the Township Committee hereby requests New Jersey Governor James Florio, in demonstration of his record on environmental issues, to intercede in this issue and work to bring about an end to an already costly, ill-advised plan.

CERTIFICATION

I, LYNN ROGERS-EISENBEIL, Clerk of the Township of Millburn, in the County of Essex, do hereby certify that the foregoing is a true and correct copy of a resolution duly adopted by the Township Committee of said Township at a regular meeting held on the 6th day of March, 1990.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Township this 7th day of March, 1990.

Lynn Rogers-Eisenbeil

Lynn Rogers-Eisenbeil
Township Clerk

HARRISON, NEW JERSEY
OFFICE OF THE MAYOR

FRANK E. RODGERS
MAYOR

March 6, 1990

Chairman Novak
Subcommittee on Water Resources
House Public Works Committee
Washington, D.C.

Re: Pompton/Passaic Dual Inlet
Tunnel Diversion Plan
Passaic River Bank

Dear Mr. Novak:

It has come to the attention of our Governing Body that the Office of Management and Budget in the Executive Office of the President has recommended support of the above entitled project in spite of the strenuous objections by County and municipal governments and the people of the lower Passaic River Basin which presently does not experience flooding.

The Dual Inlet Tunnel Plan calls for the construction of floodwalls and levies which will complicate the disposal of stormwater run-off which now is not a problem and will have a negative impact on industry and seriously affect the economic growth of the region. The maintenance of these floodwalls and levies would place an unnecessary financial burden on our taxpayers and those of the other municipalities as well.

The costs associated with this project are presently estimated by the Corps of Engineers as $879 million for construction with 25% of the cost to be funded by the State of New Jersey. If the extension of the point of discharge to Newark Bay is given serious consideration, the costs will increase by $300 million and by the time the project is fully completed it will in all probability exceed $1.5 billion with continued operating and maintenance costs of over $3 million annually with a substantial amount of the States portion being paid by the taxpayers of the Town of Harrison who have done nothing to create the problem.

The uncontrolled development in the flood plains of the Central Passaic River Valley, in complete disregard of the National Flood Insurance Program Regulations caused the problem. This problem did not surface overnight but has been one of long standing over a period of many decades. Noncompliant communities should not be subsidized by taxpayers in the substantial majority of Communities that have made a conscientious effort to abide by the rules and regulations of the National Flood Insurance Program.

The Town of Harrison is opposed to the Tunnel Project, however, we respectfully request support for a flood management program which centers mainly on a buy-out of floodprone homes, floodproofing, and other nonstructural methods of flood control which also could be beneficial in solving the water shortage problems experienced in the State from time to time. This will involve only a one time cost and end the problem once and for all.

Your support of the Town of Harrison's position is urgently requested.

Yours very truly,

Frank E. Rodgers

FRANK E. RODGERS
Mayor

FER:mn

TOWN OF HARRISON
HUDSON COUNTY
NEW JERSEY

March 6, 1990

RESOLUTION
(Cont'd)

WHEREAS, unwise development in the flood plains of the greater Wayne area in violation of the National Flood Insurance Program Regulations has caused the problems which should be corrected at the source; and

WHEREAS, viable and more cost effective alternatives exist which the United States Army Corps of Engineers has not fully explored within reasonable limits; and

WHEREAS, the Office of Management and Budget of the Executive Office of the President has indicated support for the tunnel project over the strenuous objections by the officials of the County and municipal Governments and the people in the lower Passaic Valley.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE TOWN OF HARRISON IN THE COUNTY OF HUDSON AND STATE OF NEW JERSEY:

1. The Governing Body is absolutely and unequivocally opposed to the proposed flood control tunnel project regardless of whether the point of discharge is at the Nutley line in the Passaic River or in the Newark Bay.

2. The Governing Body respectfully request support for a flood management program which centers mainly on a buyout of flood prone homes, flood proofing, and other non-structural methods of flood control.

3. That there be a cessation and abandonment of all plans involving the construction of the proposed flood control tunnel, flood walls, levies and all other appurtenant work.

4. That no funds be authorized or appropriated or any commitment made to further study, evaluate, design, survey, or do anything which would in any form lead to the implementation of a flood control tunnel to the lower Passaic Valley or the Newark Bay.

5. Since the Town of Harirson was not responsible for the flooding problem in the Central Passaic River Valley and will not benefit from the proposed tunnel plan, we, therefore, will not assume any responsibility as a non-federal sponsor nor any financial obligation for a cost sharing of the project now or in the future.

6. That the Town Clerk be and she is hereby instructed to forward a copy of this Resolution to the President of the United States, the Governor of the State of New Jersey, all members of the New Jersey Congressional Delegation and all members of the New Jersey Legislature with the request that they do all in their power to stop this ill-conceived project permanently.

Margaret M. Mc Guigan
COUNCILMAN

I HEREBY CERTIFY this is a true
copy of a Resolution adopted by
the Mayor and Council at their
meeting held March 6, 1990.

Josephine M. Catrambone
JOSEPHINE M. CATRAMBONE, TOWN CLERK

TOWN OF HARRISON
HUDSON COUNTY
NEW JERSEY

March 6, 1990

RESOLUTION

WHEREAS, flooding has been a problem for a great many years in the Passaic River Basin and especially serious in the Central Passaic River Valley, also known as the greater Wayne area, and

WHEREAS, the United States Army Corps of Engineers has presented a Proposal for a 13.5 mile, 39 foot diameter flood control tunnel knwon as the Dual Inlet Tunnel Plan as the only solution to flooding in the greater Wayne area; and

WHEREAS, this tunnel would transfer massive amounts of flood waters from the greater Wayne area to Nutley with a severe impact on the riverfront of the Town of Harrison which lies downstream from the point of discharge into the Passaic River; and

WHEREAS, the proposed plan calls for the construction of excessively high flood walls and levies along the riverfront of the Town of Harrison denying access to the river for the public and seriously affecting the rehabilitation and economic growth of the urban and industrial areas of our Town and other municipalities in the lower Passaic River area as well; and

WHEREAS, a recommendation is being considered by the United States Army Corps of Engineers to further extend the tunnel to discharge into the Newark Bay which would still have an undesirable and detrimental impact on the lower Passaic; and

WHEREAS, the proposed tunnel project originally estimated at a minimum of $845 million will exceed $1.5 billion with continued operating costs of over $3 million annually with a substantial portion being paid by the residents of the Town of Harirson who have had no responsibility whatsoever for creating the problem; and

WHEREAS, the Town of Harrison and the other municipalities in the lower Passaic basin do not experience flooding under present conditions and have not had any need for such flood walls and levies as are being planned for this project; and

WHEREAS, the maintenance of such flood walls and levies would place an undue financial burden on the Town of Harrison and complicate the disposal of surface drainage under ordinary conditions; and

WHEREAS, the operation of the tunnel which calls for the closing of low level bridges which cross the Passaic River during a flood emergency would cause a serious disruption to vehicular traffic and cause serious economic losses for the industries and citizens in the Town of Harrison and the surrounding area; and

WHEREAS, the environmental problems of the Dual Inlet Tunnel Plan associated with water quality would have a serious detrimental impact on the lower Passaic forever in spite of federal regulations which call for "fishable and swimmable river systems; and

NJSEED
New Jersey Society for Environmental,
Economic Development

28 West State Street
Suite #1100
Trenton, NJ 08608
(609) 695-7007

March 21, 1990

The Honorable Robert A. Roe, M.C.
U.S. House of Representatives
2243 Rayburn House Office Building
Washington, D.C. 20515-3008

Dear ~~Representative Roe~~: Bob

The New Jersey Society for Environmental, Economic Development (NJ/SEED) wishes to express its full support for the design, construction and operation of the Passaic River Tunnel Project.

The Completion of this project would mean a permanent end to many of the flooding woes that plague the Passaic River Basin, which, in turn have an impact on over two million New Jersey residents.

NJ SEED strongly believes this project is a cost-effective one, since the economic effects of just one major flood would total more than its construction cost. In addition, we support the extension of the tunnel project to the Newark Bay.

As you have shown leadership in championing this needed work in Congress, so NJ SEED will work with Governor Florio and our Legislature to provide a funding mechanism for the state/local matching dollars for this project.

NJ SEED would be pleased to have its expression of support of the Passaic River Tunnel Project entered on the hearing record.

As our name, the NJ Society for Environmental Economic Development, implies, we support a balance of growth and preservation of our state's ecology. This project closely mirrors SEED's goals, ensuring future economic growth while protecting the lives and property of millions of New Jerseyans.

NJ SEED looks forward to working with you to make this project a reality.

Sincerely,

John
John H. Maddocks
President

Charlie
Charlie Marciante
Vice President

James C. Morford
Secretary

JHM/CM/JCM/wrh:mk

UTCA
25TH ANNIVERSARY

UTILITY and TRANSPORTATION CONTRACTORS
ASSOCIATION OF NEW JERSEY

P.O. BOX 815, 150 AIRPORT ROAD, LAKEWOOD, NJ 08701 201-367-1500 FAX: 201-905-4951

1965-1990

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Executive Director

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April 4, 1990

Mr. Joseph Italiano
Editor
2165 Rayburn House Office Building
Washington, DC 20515

RE: U.S. House of Representatives Committee On
Public Works and Transportation Subcommittee
On Water Resources March 14, 1990 Hearing

Dear Honorable Henry Nowak, Chairman,
and Members of the Committee:

The Utility and Transportation Contractors Association of New Jersey urges you to totally support continued funding for the Army Corps of Engineers Pompton/Passaic Dual Inlet Tunnel Project as well as the proposed extention to Newark Bay.

The Pompton-Passaic River's flooding problem has been reviewed and analyzed for over forty years. The Army Corps of Engineers has also studied this problem for over thirty years, and the present plan is the culmination of its efforts. Despite uneducated rebotoric and deliberate disinformation from those opposed to the project, the Corps of Engineers' current plan is the best professionally developed solution to the long standing and life threatening flooding problem. This plan is both environmentally and economically sound, while also protecting private and commercial property.

After forty years of review, studies and analysis, the 2.5 million residents in the flood area deserve relief from this hazard to the public. We strongly urge you to support this important effort.

Sincerely,

Bob Briant

ROBERT A. BRIANT, JR.
Assistant Executive Director

RAB:gg

AFFILIATIONS—
American Road & Transportation Builders Association
National Utility Contractors Association

Mr. **Nowak**. We have a further panel that has requested time, and they are: Ellis Vieser, President of the New Jersey Alliance for Action, and will bring other members that will testify together; J.B. Wiley, Jr., who is a P.E., P.P., chairman, Passaic River Organizations to Encourage Construction of the Tunnel; and Lieutenant Orrie DuBois, coordinator, Wayne County, Office of Emergency Management.

Mr. Vieser.

TESTIMONY OF ELLIS VIESER, PRESIDENT, NEW JERSEY ALLIANCE FOR ACTION; J.B. WILEY, JR., CHAIRMAN, PASSAIC RIVER ORGANIZATION TO ENCOURAGE CONSTRUCTION OF THE TUNNEL [PROTECT]; AND ORRIE DuBOIS, COORDINATOR, WAYNE TOWNSHIP, OFFICE OF EMERGENCY MANAGEMENT

Mr. **Vieser**. Good afternoon. My name is Ellis Vieser, I'm President of the New Jersey Alliance for Action. That's an organization of over 500 organizations representing engineers, professional engineering groups, representing developers, representing the largest corporations in New Jersey, such as New Jersey Bell and Johnson and Johnson, also authorities, Governmental agencies, and the reason they belong is that we were put together 16 years ago to focus on the economy, to look at the detailed aspects of the environment and eliminate red tape and bureaucratic roadblocks.

I'm going to give facts, and I'm going to cut this testimony very short, and I'm going to ask my colleagues, also.

Congressman Nowak, you, in particular, know my interest nationally on the National Water Alliance. At the same time, personally, I've been involved in this project, or this situation, for over 16 years intimately.

I also am Chairman of the New Jersey Waste Water Trust, which is a State revolving fund appointed by the governor to address the financing of waste water treatment plants.

We have put in the ground over $600 million worth of projects in the past three years, and that's a fact. In fact, the State of New Jersey is the non-federal sponsor of this project.

Some eight years ago, and every environmental commissioner since, and that's the leading environmental group in the State of New Jersey officially, has endorsed the tunnel plan and does still today.

In fact, the tunnel plan was originated by the County Engineer, Frank McCormick, in 1975. A fact is that the Corps of Engineers is the greatest engineering organization in the world and recognized by foreign countries as such, and I stand on that fact, and I hate to see people using innuendos that they are a second-rate organization.

As far as we're concerned, they're a top rate organization. They were brought into this, as you would know, as Congressman.

They don't go into a state because they're not asked. They're invited in and invited to solve the problem. It's almost as if this plan was some dreamt up scheme.

They submitted about 120 plans to the State of New Jersey, and it was selected by the state. That's a fact. I've heard a lot of distortion of facts this afternoon, but if you look on the record here, you will see that we have the support of every professional engineering group in the State of New Jersey that supports this project.

Now, let me say that to become a licensed professional engineer, and you people on the dias understand this, I believe, first of all, you have to graduate from an accredited college in engineering.

Secondly, you have to have an extended period of experience. You then take an extensive examination to prove your capabilities, and then you become licensed, and you swear to a code of ethics, and that code of ethics is to protect the public.

When I lay out before you that the New Jersey Professional Engineering Society, the New Jersey Municipal Engineering Society, the American Society of several engineers, mechanical engineers licensed, are in favor of their project, they have done their work, they have analyzed it, there are no innuendos, they have supported this project.

We formed a committee because we realized there were groups out here, such as you have heard here today, that were opposing this project and distorting the facts.

The distortion of facts should not lead to a decision on your part, and I know you hear from all kinds of people on this, but the facts of this case are that two years ago, we realized we had to get into an educational program of what this was all about, a tunnel and an extension to relive the flooding.

A gentleman stepped forward, one of our members who is a licensed engineer in five States, a professional planner, and accepted the responsibility as Chairman.

I will defer to ask him and ask him condense his statement here today in view of the time and the fact that you have been so patient up there today.

Thank you very much.

Mr. **NOWAK**. Thank you.

Mr. Wiley.

Mr. **WILEY**. Thank you, Mr. Chairman and members of the committee.

We appreciate the opportunity to appear before you. Our written testimony will, I believe, cover the points that we think are important, and, as suggested, we will submit that and truncate our remarks to the essential minimum.

I would like to point out apropos of the comments that have been made about environmentalists in New Jersey and their position, I would like to say that I believe that I am the only person in the room from New Jersey who is certified as an environmental professional by the National Association of Environmental Professionals.

I assure you that not all persons who are interested in the environment are on the other side of this question. I have both lived and worked in the Passaic River Basin.

I have seen firsthand the kind of destruction that can take place over a period of time. I've had an opportunity to examine the plan which has been selected by the State of New Jersey to correct this problem; thus, my interest in this as a solution.

The present plan will use a large underground system to forever solve the problem of flooding in the Passaic River Basin, both the upper portion of the basin and the lower portion of the basin.

As has been pointed out in other testimony, far from ruining the wetlands and eliminating them, this plan involves the acquisition and permanent protection of over 5,000 acres of wetlands.

Protected by a joint State-Federal agreement, neither side could change that unilaterally, and that is not the case with any other mechanism for protecting those 5,000 acres.

We also bring to your attention, as has been said before, that the then-Governor of New Jersey, Tom Kean, and the New Jersey Department of Environmental Protection, having had an opportunity to study the proposed plans of the corps presented to your committee, have endorsed the plan.

PROTECT will support the tunnel plan as it is proposed currently or with an extension to the Newark Bay. Either of those, in our opinion, are satisfactory, and we support whichever one your committee decides to recommend for further consideration.

On behalf of PROTECT and all of the hundreds of people who are part of the many organizations which form the New Jersey Alliance for Action, of which we are an action part, I thank you for listening to us, for your time, and for your attention to this very important matter. Thank you.

Mr. NOWAK. We will now have Orrie DuBois.

Mr. DUBOIS. I certainly want to thank you for your patience and for inviting us.

I don't want anybody to throw stones, but I'm from Wayne Township, and I am Emergency Management Coordinator. I was told on short notice that I was coming down here, and I want to apologize that the report you have from Wayne Township is not really mine. It was made out of the graces of someone else.

The State mandates I qualify two times a year my off duty and my service revolver, and I had to do that yesterday, so I didn't have the time to work on it. I worked on it on the bus.

I asked the mayor, Mayor Miller, why should I go, and I thought maybe the administration should go, and he said, well, you've got the most hands on experience.

Sitting here, I kind of find that that was a wise choice, that perhaps I do have something to give to you. I also want to point this out.

I don't want anybody to get mad at me. Certainly, people get mad at you enough if you're a police officer. I'm sick and tired of hearing that the building in Wayne has created all the flooding.

The Passaic River Basin runs from the southerly part of Morris County up into New York State, 109 miles, 600 and some square miles.

Therefore, anybody that builds within that area affects flooding. Anybody. I want to go along with Congressman Roe, who is a lifelong resident of Wayne, my experience is 24 years in Wayne, that there has been very, very little new development as far as housing in the Township of Wayne in the wetlands.

I can think of one area, which is called Laguna Estates, that was developed. It's a new development, and I honestly have to tell you I don't think they thought it was going to flood.

Someone mentioned a while back that the flood basin is expanding. It certainly is. It certainly is getting wider. If somebody had told me 10 years ago Laguna Estates was going to flood, I would have said preposterous, just as Patterson City Hall is going to flood.

So indirectly and sometime down river, a lot of other people are going to be affected. I also want to let it be known to you that I'm not speaking for them, but just in case they don't have the time to speak, much of what I say refers to the Townships of Pequannock, Little Falls, Lincoln Park, Pompton Lakes, Oakland and Fairfield, and they're from four different counties: Passaic, Morris, Essex and Bergen.

All of these towns are affected by this flood land. There was also a statement by one of the freeholders. He said that significant flooding occurs every 10 years.

Well, that's untrue. I know he meant well. Let me tell you, significant flooding occurred in the area of Wayne Township in 1983, winter; 1984, a completely devastating flood in the spring; 1987, another devastating flood in the spring time; 1989, two floods, and one very, very significant.

Congressman Roe stated something about Hurricane Alice. Let me tell you, if Hurricane Hugo came another 300 or 400 miles north, you would have had a 100 year flood, and I probably wouldn't have to be here, because they would have been starting the tunnel project right now.

I don't want to dramatize this too much, but how much do we put on human life? In 1983, we lost a young volunteer fireman.

He left a young widow. He never had a chance to have a family. There was an all out effort to recover his body. If you worked along that river as long as I did, you knew that the only time his body is coming up is in spring time, and that's when it came up.

I think his loss of life was confused with the 1984 flood. He was lost in the 1983 winter flood. In 1984, we lost two elderly women.

A lot of the old timers, rightfully so, don't want to go sleep in the shelter; they want to stay in their homes. The next time we had a chance to check on them, the water had gone over the roof of their house. I don't want to dramatize it to you.

There are those people, and we've heard them, that say that the buy-out program would work. Well, let me tell you this.

It's going to cost $4 billion. That includes eliminating the Willow Brook Shopping Center. It's a major city almost. It contains 40,000 at one time, and 9,000 vehicles are parked there.

There's another project, I think, that was one of the few that was built in the last 20 years, and there again, I don't think they thought it was going to flood, and it floods now.

Okay, let's say that we bought out this area. That still leaves the major highways of Route 23, Route 46, Route 80, the major road of Hanburg Turnpike, they are still going to flood, and when they flood, every municipality in that area becomes an island.

If you have a heart attack, God help you. You're probably not going to be able to get to the hospital. The only way you're going to get to the hospital is through boat.

Any other towns that want to do any communications or anything like that, it's virtually impossible. I want you to understand that.

It's a hard thing for people to realize who haven't really experienced it. A young fellow mentioned here that we can put people in townhouses.

Well, I only own a bungalow in Wayne, but a home is a home. That's my bungalow. I don't want to relocate in a townhouse.

By the way, I don't live in the flood way. I'm not affected by the floods. But I can tell you right now facts, as Congressman Roe put it, a house in the Wayne area flood way is being bought out at $85,000.

To relocate, and this is being very conservative, would cost the home owner another $150,000. It would cost him $150,000 at least to relocate.

The ones that are frustratingly selling out are the ones that are on low levels. Their homes aren't elevated, and every time we have a minor flood, their living rooms get inundated.

But you have to understand, it's easy to say let's buy them out, but that's their neighborhood, that's where they live.

I realize people will say, well, they shouldn't have done it, but it was done long before a lot of us were ever born. I'm 51 years old, and it was done long before I was born.

Just bear with me a minute. I don't want to forget anything. We're going to talk about if we relocate all these people, look at the tax base that these communities are going to suffer.

They're going to lose a lot of revenue, and the other towns are going to have to take up that loss of revenue. Those taxes are going to have to be paid somewhere if you relocate these people.

If we were to have this tunnel, this is the advantages of it. The land values and present tax base of all the towns that are involved would at least remain stable, and in the long term would be enhanced.

Think about it for a minute. Were you to buy out all of the homes and businesses in the entire flood area of the Passaic River Basin, the increase in taxes to remaining residents, as I just said, would be substantial.

Again, I will mention Congressman Roe, but for years now he has led the fight for a permanent solution to the nearly annual problem of flooding in the Passaic River Basin, and believe me, it's annual.

Congressman Roe is a lifelong resident of Wayne and a former mayor. He, like I, has witnessed the floods firsthand. I know there's veterans among you. If you ever visited one of these floods, you would think that you're in a war zone. Believe me, you would think that you were in a war zone.

My responsibility as Emergency Manager covers four phases. It covers prevention, response, mitigation and recovery.

To go over it real quick, we have mitigation, we have an early warning system, the national weather is right on top of it with river projections, we evacuate people, we recommend elevating buildings, we make sure cellars are pumped out when the flood is inundated so buildings don't collapse, national flood insurance—that costs everybody money, national flood insurance.

We can respond to these floods. Sometimes it takes the National Guard to help us, and that's more money. We certainly cannot prevent it.

The only way to prevent these floods is this tunnel project, and that's why I'm here to support it on behalf of Wayne Township.

Let me say, there are 132 communities in New Jersey and New York that are in the Passaic River Basin. The only long term solution is the Dual Inlet Tunnel Project.

We support the efforts of Congressman Roe, Congressman Gallo and all the other concerned parties and implore you to support the dual inlet tunnel which begins in Wayne and extends in Newark Bay.

Let's cut the rigamarole out about Nutley. We're for it extended in there. I just want to say one thing. There's a young lady in the back, she said, gee, it was beautiful today when it got here.

The cherry blossoms were out, and this is a little dramatization, believe me, I apologize for it, but she said I forgot that it's spring and I have to worry, because when I go back home, I have to worry about getting flooded. Thank you very much.

Mr. **Vieser**. Congressman Nowak, I would be remiss if I didn't introduce the people here in the room. The other groups that were here, they had a lot of people that didn't say anything.

Well, the people that have been flooded out, those people that have had their hardship, would you all stand up there, please?

These people have been flooded out. They know this devastation. I think that's important. That's why they came down here.

The other thing is that has not been mentioned, our organization went before the corps and asked if they could alleviate through an early warning system some four years ago.

They took the idea, we had communication experts, and they worked at it, and the local people worked at it, you people provided the money.

We have an early warning system there in place, thanks to you. I didn't hear anybody mention that before, but that particular project received a Smithsonian award for the most innovative project in the Nation in the last six months.

I think that's important. That was something constructive. Thank you very much.

Mr. **Nowak**. Thank you for your testimony, also. One of the points that keeps being made reference to is the alternative buyout.

It is my understanding the corps would have gone through that process early on, looking at that alternative, and then somewhere along the line, these numbers start to spread away from a favorable cost benefit.

I wondered, Mr. Wiley, if you're familiar with that process or when that decision was made, or if you don't have it, as I could appreciate, right at your fingertips, could you relate that to us at a later time?

Mr. **Wiley**. Mr. Chairman, I have a few figures here that bear on the question that you have raised. The number of structures in the Passaic River main stem that are affected will be affected by a 100 year storm, in Passaic County, there's approximately 7,000, including 3,000 in Patterson, 1,000 in Pompton Lakes, 1,500 in Wayne, and the rest through other communities in Passaic County.

In Essex County, 2,100 structures will be affected by the next 100 year storm. The bulk of those are in Fairfield, 1,500 approximately in Fairfield, western Essex County.

In Morris County, 4,600 structures, the largest single component of that being 2,500 in Pequannock, 1,000 in Lincoln Park, and the balance spread amongst other communities in Morris County.

The sum of all of those, if my arithmetic is correct, is approximately 13,500 structures.

Mr. NOWAK. Is there a cost associated with that?

Mr. WILEY. Yes, Mr. Chairman.

Mr. NOWAK. Where are you getting the figures from?

Mr. WILEY. These are taken, sir, from the report prepared for the Congress by the Corps of Engineers New York District and reviewed by the Chief of Engineers Office in Washington, and more recently approved by the Secretary of the Army for Civil Works.

Mr. NOWAK. All right. So it's in the corps' reference?

Mr. WILEY. Yes, sir, they're taken from the corps report. The cost of acquiring all of those structures, using the dollars in the year when the report was made, was something over $4 billion.

Mr. VIESER. If those projects were bought up in the buy-out, and reflecting on the 1903 flood, it would not alleviate downtown Patterson being flooded again.

So the buy-out program, although it sounds great and people can point fingers at it, really would not work if you did everything that the buy-out advocates are saying.

That same situation, as Congressman Roe referred to, would take place.

For you who are not in the region, the geographic configuration in that basin is one of the most unusual practically in the world. It is in the United States, because there's a plug in the bathtub at Little Falls that backs everything up. We have to get through the bathtub plug.

Mr. NOWAK. Thank you.

Congressman Stangeland.

Mr. STANGELAND. I have no questions. Just thank you for your patience and your comments here. Certainly, I think we've come to realize that Congressman Bob Roe is a very strong environmentalist advocate, but, as I said before, he's also one who wants to solve problems.

You've got a problem, and he's a problem solver, and we look to his leadership and to your comments as we work through this maze of conflicting testimony.

Mr. VIESER. It's very important, Congressman, and your comments are right on. Bob Roe, we're lucky we have him. He's a very special man.

I've known him for a long time, and we love him dearly for his dedication. But also we have the four Congressmen in that region who have supported this, we now have the two Senators, and we have the analysis of the Corps of Engineers, and it really annoys me when I hear them blasphemed here this afternoon.

I think they're a great organization, they do the job that they're appointed to do, and they're in there because we invited them in, such as you and other parts of the country invite them, and you referred to that before.

I don't think we should do that really. They're very dedicated people, and we believe in what they do.

Mr. DuBois. I'd just like to say one thing. You mentioned the environment, and there are people mentioning the environment of the beautiful Passaic River, reclaiming parts.

I know of no one recreational swimming in that Passaic River, that's for sure. When the river leaves its banks and it recedes, the bacteria and the pollution that it involves, we'd have to give our people lime and disinfectants so they could go back in their houses. It's not a clean river.

Mr. Nowak. Congressman Roe, I wonder if you have any last words of advice here?

Mr. Roe. It's only the beginning of my words of advice. I want to thank everyone for coming down. You know, it's interesting to me, many of the people in this room I've known a long time, and I want to thank you for your support and your kindnesses.

It's kind of sad, in a way, when you see that people who disagree with one view can't wait and listen to hear, maybe we could learn something by listening to somebody.

So the very same people, if the Chairman would yield, appear to me that they have to rush off, look at what we said, and we kicked those people around, and so forth and so on.

It's interesting to me, and I didn't want to be rude, I would have asked each and every one of them, well, where do you live?

I believe that Ella lives in Basking Ridge over in the hills and so forth and so on. I don't say that unkindly. You know, some people seem to try to make their point by making other people look like fools.

The tragedy of the thing is that I remember going back—I guess it was in the latter part of the 1960s, 1969—when we had that really big flood, and seven people lost their lives in that flood.

It was really one of the worst we've had. I remember a mayor in one of the communities in Essex County, and we went to the meeting, and, of course, I'm quite worked up that we've got to be moving, we were working on plan C then, if you remember, and I said to him, "well, you know, we've got to get on it."

He said, "well, now just a minute, Mr. Commissioner," he said, "you know, I know seven people lost their lives, but what about our ratables? What about our ratables?"

What's the matter with us as voters and as people who try to get something done, having nothing to do with partisan politics?

Where was all the indepth knowledge? Here we have the Corps of Engineers building all of the major projects in the world, not only in the United States, There wasn't one thing that they had done right. Not one single thing.

So you come back, and you've got these people that are telling us about aquifers, and they're telling us about the water supply and so forth, I'd like to tell them I remember when we built the Montague Reservoir, we just built another reservoir, we spent hundreds of millions of dollars in our Green Acres Open Space Program, we've made that area.

Here you have people coming into our area who are not affected at all and telling us how wrong we are and how we should live, when they don't have that river at their doorstep.

So we'll go and fight. That's what we've got to do. We've got to get the truth out to the people so the people understand.

Let me say this, Mr. Chairman, if I can close on this point. We've been at this for 30 years. I honest to God, let me say this to my citizens, I wouldn't know where else to look.

I don't know what else to do. They're dead wrong on the buy-out. They're talking about that buy-out. Okay, do you think the Congress of the United States is going to spend a billion dollars buying out homes?

Not in a million years. I couldn't even sell it on the floor of the House. So they're going to come back to the State of New Jersey as they always do, hey, fellows, it's your problem, you figure it out.

The assumption that we're going to get a big wad of money and sell a house just because Ella Filippone says she's going to buy it up, then she better damn well figure out where she's going to get the money from, because I can tell you right now, it's not going to come from the Congress of the United States, unless we build that tunnel.

So thanks a million for your kindness. I appreciate it very much.

Mr. VIESER. I have 7,000 petitions I'd like to leave with you, please.

Mr. NOWAK. Without objection, so ordered. We will receive them for the Subcommittee file. Thank you again for coming.

[Mr. Wiley's prepared statement; and Mr. DuBois' prepared statement follow:]

PROTECT
Passaic River Organizations To Encourage Construction of the Tunnel
P.O. Box 6438 • Raritan Plaza II • Raritan Center • Edison NJ 08818 • 201-225-1180 • FAX 201-225-4694

TESTIMONY ON
POMPTON/PASSAIC DUAL INLET TUNNEL DIVERSION PLAN

BY

J. B. WILEY, JR.
CHAIRMAN, PROTECT

BEFORE THE

PUBLIC WORKS AND TRANSPORTATION SUBCOMMITTEE ON WATER RESOURCES

UNITED STATES HOUSE OF REPRESENTATIVES

ON

MARCH 14, 1990

"PROTECT" is a committee of the New Jersey Alliance For Action, Inc.

Mr. Chairman and Members of the Committee:

My name is J. B. Wiley, Jr. and I represent **PROTECT** (Passaic River Organizations to Encourage Construction of the Tunnel). **PROTECT** is a committee of the New Jersey Alliance for Action. The Alliance for Action is a statewide coalition of leaders from municipal and county governments, business, labor, professional and civic organizations. The Alliance for Action concerns itself with advancing those causes which improve the quality of life for New Jersey residents. The Alliance for Action's involvement in solving the flooding in the Passaic River Basin began with the inception of the Alliance some 16 years ago as a result of the severe flooding in this region.

PROTECT was formed in 1988 to bring together New Jersey municipal governments, counties, public agencies, organized labor, business interests, professional and civic groups and concerned citizens united in support of the Passaic River Tunnel Plan. This project will provide flood protection for the more than 100 municipalities in New Jersey which lie within the Passaic River Basin.

In addition to being a Professional Engineer licensed by New Jersey, New York and three other nearby states, I am certified by the National Association of Environmental Professionals.

In prior years, I have both lived and worked within the flood hazard area of the Passaic River, and have personally experienced the devastation caused by the destructive force of flooding which takes place in the Passaic River and its tributaries. This devastation is not only responsible for extensive property damage, but the most critical, the loss of life.

The individuals and organizations which have endorsed the concept of the Tunnel Plan are attached to this testimony.

Thanks to the far sighted vision of New Jersey's Congressional delegation and the support of Congress over many years, the extensive studies of the Corps of Engineers have finally evolved a plan of protection from the serious and recurrent flooding in the Passaic River Basin. Over 150 structural and non-structural plans were studied by Federal and State officials; and the State of New Jersey selected and endorsed the Passaic River Tunnel Plan. This unique plan will drain flood waters away from the populated and the damage prone areas, divert this flood water through an underground tunnel system and meter the outlet discharge into a waterway capable of accommodating the increased flow.

The present plan will use a large underground tunnel system to resolve the flooding problem, and as a consequence, will result in a minimum of disruption to persons and properties at the surface. Previous flood control plans have encountered resistance from some residents within the basin because of the extensive surface works which would have been required. We note with considerable enthusiasm that this plan involves the acquisition and permanent preservation of more than 5,000 acres of wetlands in the upper Passaic Basin. Acquisition, and thus permanent protection, is enthusiastically endorsed by virtually all local interests.

While a few individuals have expressed the view that a better plan would be to purchase the properties which are affected by flooding, evict the residents, and their houses, our examination of this proposal shows it to be entirely impractical. Aside from the human dimension of evicting people and destroying their houses, the simple fact is that to clear out all of the properties impacted by the storm flood levels would involve the relocation of approximately 15,000 residents and another 2,000 buildings at a cost of over $4 billion. That is about four times the estimated cost of the recommended Tunnel Plan. In addition, the entire cost of this alternative would have to be paid by the State of New Jersey.

The destructive flood of April 1984 made it necessary for over 9,000 homes to be evacuated, and resulted in 4 deaths. One of these was that of a firemen attempting to rescue people from their house. The damages which resulted from the flood in 1984 amounted to approximately $360 million dollars. A repetition of the record flood of 1903, which can of course occur again at anytime, would result in damages estimated at nearly $2 billion dollars.

We also note that after careful study, former Governor Thomas Kean and the New Jersey Department of Environmental Protection have expressed support for the Dual Inlet Tunnel Plan, and the State has agreed to be the non-Federal sponsor of the project. Both of New Jersey's Senators, Bill Bradley and Frank Lautenberg, as well as Congressmen Roe, Gallo and Torricelli are in support of the Tunnel Plan with the extension of the outlet to Newark Bay.

PROTECT will support the Tunnel Plan as it is proposed currently, or with an extension to Newark Bay.

We urge the Congress to authorize the project so it may be constructed before the forces of nature have another opportunity to destroy property and devastate human life.

On behalf of **PROTECT**, I would like to thank you for the opportunity to present our position to you, Mr. Chairman and the Members of your Subcommittee.

PROTECT

Passaic River Organizations To Encourage Construction of the Tunnel

P.O. Box 6438 • Raritan Plaza II • Raritan Center • Edison NJ 08818 • 201-225-1180 • FAX 201-225-4694

TUNNEL PLAN ENDORSEMENTS

The Pompton/Passaic Dual Inlet Tunnel Plan has received numerous endorsements, including:

The Honorable Dean Gallo, United States House of Representatives
The Honorable Robert Roe, United States House of Representatives
The Honorable Leanna Brown, New Jersey State Senate, 26th District
The Honorable Joseph Bubba, New Jersey State Senate, 34th District
The Honorable Alex DeCroce, New Jersey State General Assembly, 26th District
The Honorable Robert J. Martin, New Jersey State General Assembly, 26th District
New Jersey Department of Environmental Protection
New Jersey Society of Professional Engineers
Association of Mechanical Engineers-NJ
Consulting Engineers Council-NJ
New Jersey Society of Municipal Engineers
American Society of Civil Engineers-NJ Section
Morris County Board of Chosen Freeholders
Passaic County Board of Chosen Freeholders
Borough of Butler
Borough of Fair Lawn
Borough of Florham Park
Borough of Lincoln Park
Borough of Pompton Lakes
Borough of West Paterson
City of Paterson
East Hanover Township
Fairfield Township
Pequannock Township
Township of Little Falls
Township of Montville
Wayne Township
Mayor's Flood Advisory Committee of Pompton Lakes
Morris & Sussex Counties Building Trades Council
Regional Water Management Board
Bergen County Building Trades Association
Natural Resources Citizen Advisory Committee
Heavy & General Construction Laborers Local #472
Building Contractors Association-NJ
Flood Residents Coalition
Iron Workers Local Union #483
National Electrical Contractors Association
New Jersey Asphalt Pavement Association
Association for Bridge Construction and Design
Construction & General Laborers Local Union #172
New Jersey Builders Association
Associated General Contractors Association-NJ
Utility and Transportation Contractors Association-NJ
New Jersey Industrial Development Association
Electricians Local Union #102 I.B.E.W.
Passaic County Building Trades Council
Operating Engineers Local Union #825
New Jersey Alliance for Action

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Passaic River Organizations To Encourage Construction of the Tunnel

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PASSAIC RIVER BASIN: DAMAGES – 100 YEAR FLOOD

COUNTY	WITHOUT TUNNEL PLAN	WITH TUNNEL PLAN[1]
PASSAIC	**$464,900,000**	0
Clifton	$10,800,000	0
Little Falls	$11,000,000	0
Passaic City	$39,800,000	0
Paterson	$105,800,000	0
Pompton Lakes	$36,400,000	0
Totowa	$7,300,000	0
Wayne	$192,300,000	0
W. Paterson	$61,500,000	0
ESSEX	**$273,500,000**	0
Belleville	$8,000,000	0
Fairfield	$172,100,000	0
Livingston	$4,800,000	0
Newark	$60,200,000	0
N. Caldwell	$100,000	0
Nutley	$600,000	0
Roseland	$100,000	0
W. Caldwell	$27,600,000	0
MORRIS	**$245,200,000**	0
E. Hanover	$13,200,000	0
Florham Pk.	$4,000,000	0
Hanover	$3,800,000	0
Lincoln Park	$79,500,000	0
Montville	$8,000,000	0
Par-Troy Hills	$13,300,000	0
Pequannock	$122,200,000	0
Riverdale	$1,200,000	0
BERGEN	**$92,100,000**	0
E. Rutherford	$9,100,000	0
Elmwood Pk.	$4,100,000	0
Fairlawn	$19,400,000	0
Garfield	$25,600,000	0
Lyndhurst	$5,300,000	0
N. Arlington	$1,400,000	0
Rutherford	$3,100,000	0
Wallington	$24,100,000	0
HUDSON	**$45,900,000**	0
E. Newark	$700,000	0
Harrison	$5,700,000	0
Kearny	$39,500,000	0
TOTAL	**$1,121,600,000**	0

SOURCE: United States Army Corps of Engineers

[1] Minor residual damage will occur in some areas.

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TUNNEL FACTS

- The State chapter of the League of Women Voters and the New Jersey Alliance for Action have been involved in searching for a solution to flooding in the Passaic River Basin for the past 15 years.

- In 1988, Governor Thomas Kean agreed that the State of New Jersey would serve as the non-federal sponsor for the Tunnel Plan. Also, each of the last three Commissioners of the New Jersey DEP has supported the Tunnel Plan.

- Damages from a most severe storm will cause damages in excess of $1.12 billion to the Passaic River Basin. At a cost of $879 million, the Tunnel will pay for itself at the time of the next 100-year flood event (the "flood of record" occurred in 1903).

- In fact, the State of New Jersey, as the non-federal sponsor, will pay only 25% of the cost of the Tunnel, $250 million, while eliminating $1.12 billion in damages.

- Annual damages due to flooding in the Passaic River Basin average $100 million, while annual maintenance of the Tunnel will cost approximately $2.1 million and eliminate all damages.

- The purchase of residential and commercial properties necessary to provide the same level of protection as the Tunnel Plan would cost at least four times as much, and severe flooding would still occur!

- The Tunnel Plan will permanently preserve 5,350 acres of natural flood plain storage areas, 5,200 acres of which are wetlands, precluding any and all future development.

- The Supervising Hydrogeologist for the State of New Jersey's Division of Water Resources conducted a technical review of the Tunnel Plan and concluded that the Tunnel would have no measurable impact on either the quantity or quality of groundwater in the Bedrock or Buried Valley aquifers of the Basin.

- Over 100 plans, both structural and non-structural, were considered by the United States Army Corps of Engineers before the selection of the Tunnel Plan by the New Jersey Department of Environmental Protection.

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THE STAR-LEDGER, Tuesday, February 27, 1990

Senators back change in Passaic tunnel plan

By ROBERT COHEN
Star-Ledger Washington Bureau

WASHINGTON—New Jersey's Democratic Sens. Frank Lautenberg and Bill Bradley said yesterday they support construction of a controversial and expensive tunnel and levee system to reduce flooding in the Passaic River Basin, but want the scope of the proposal expanded.

The two senators said they will seek to amend a national water projects bill that calls for spending $913 million to construct a 13.5-mile flood tunnel and 37.8 miles of levees to divert floodwaters from the Upper Pompton and the Passaic rivers in Wayne and release them in the lower Passaic River near the Nutley and Clifton border.

The senators, responding to complaints from local officials and community organizations, said they want to see the proposed flood control system extended several miles so that the floodwaters dump into Newark Bay rather than into the Passaic River near Nutley and Clifton.

This extension, they said, will require another $300 million in funding for the project.

The extension has been proposed because of a concern that ending the tunnel in the Nutley area will only transfer the flood danger to eastern Essex and southern Bergen County communities.

Both senators said they support the project with the costly extension, and would have to review their position if it is not made part of the project. The project requires federal approval and funding as well as a state financial contribution.

"Residents in the Passaic River Basin desperately need this project to prevent frequent flooding of their homes," said Lautenberg. "Each year, this flooding costs our residents close to $100 million. This proposal offers a comprehensive means of slashing those costs and the chance of tragic loss of life."

Bradley said the proposal will "address the fears of many communities along the Passaic River."

"We want to do what we can to protect all the families and communities endangered by the persistent flooding of the river," said Bradley.

In the House, a similar proposal will be pushed by Reps. Robert Roe (D-8th Dist.) and Robert Torricelli (D-9th Dist.).

The Bush administration earlier this month gave its blessing for construction of the project as proposed by the Army Corps of Engineers. This plan did not include the extension, and an administration analysis concluded that lengthening the tunnel would not be cost-effective.

There are also a number of organizations that vigorously oppose the entire project.

The Passaic River Basin is 935 square miles, covering eight counties in North Jersey and two counties in New York. More than 2.5 million people live in the basin.

Floodwaters last swamped the region in April 1984, killing four people and causing $350 million in damage. The basin was declared a disaster area that year and also during floods in 1968, 1971, 1972, 1973 and twice in 1975.

THE NEW YORK TIMES, SUNDAY, JULY 13, 1975 8 NJ

Flood-Control Tunnel Urged

Special to The New York Times

WASHINGTON — New Jersey's Congressional delegation is being urged to promote a $500-million flood-control program for three counties in the northern part of the state.

The project, which would help to control flooding in Essex, Morris and Passaic Counties, is tied to the construction of a 16-mile tunnel between Beattie's Dam, on the Passaic River in Little Falls, and Newark Bay.

In addition, levees and dikes would be built along tributaries of the Passaic River, and the river itself would be widened near Newark.

The plan, originally recommended by Francis P. McCormick, the Essex County Engineer, is being offered as an alternative to a proposal by the Army Corps of Engineers. The corps has urged the realignment of waterways, including a 35-mile dam, at a cost of $1-billion.

Mr. McCormick feels that the Army proposal, called Plan IIB, would deprive the counties of taxable property. He said that he had worked out the tunnel idea after studying such projects in the Rocky Mountains; the tunnel, he predicted, could be drilled for $30 a cubic foot.

The New York Times

Francis P. McCormick

The Corps of Engineers is opposed to building a tunnel to help carry off waters resulting from heavy rains or melting snow. A spokesman said that the corps had considered such a proposal in 1960, but had rejected it because it was considered economically unsound.

Mr. McCormick told Congressional representatives and the Freeholders of the three counties that he envisioned the construction of a 48-foot-high tunnel at a cost of $132-million. All other work attached to the project, he predicted, would bring the figure to $500-million, or about half of the Army proposal.

The engineer stressed that the rock strata under Essex County lent itself to tunneling. He added that cost studies had shown that the price of drilling tunnels like the one proposed decreased considerably as their size grew because larger machines could be used to work inside them.

However, before the proposal for a tunnel can be brought before Congress, the Army project — Plan IIB — must be reviewed. At that time, a New Jersey Congressman is expected to suggest the tunnel proposal as an alternative.

Meanwhile, municipal and civic leaders in many communities in the three counties have emphasized the losses they have suffered in the last decade as a result of flood damage. They have prodded state and Federal officials for quick action.

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LIST OF ATTENDEES
TRIP TO WASHINGTON, D.C.
MARCH 14, 1990

1. Ellis S. Vieser, President, NJ Alliance for Action
2. J.B. Wiley, Jr., P.E, P.P., Chairman, "PROTECT"
3. Erica D. Schiffman, Project Coordinator, "PROTECT"
4. Freeholder Director Richard A. DuHaime, Passaic County
5. Michael Stoddard, representing the Morris County Board of Chosen Freeholders
6. Jack Freidenrich, RBA Group, representing the NJ Society of Professional Eng.
7. Thomas Skidmore, JCA Associates, representing the American Society of Civil Eng.
8. Jean Stark, Resident, Pompton Lakes
9. Monica McGinty, Resident, Pompton Lakes Mayor's Flood Adv. Comm.
10. Helen Spafford, Resident, Pompton Lakes
11. Lee Marotta, Resident, Pompton Lakes
12. Rose Margolin, Resident, Pompton Lakes
13. Councilwoman Millie Torsiello, Pompton Lakes
14. Councilman Hy Nadel, Councilman, Lincoln Park
15. Councilwoman Lorie Mottese, Lincoln Park
16. Mayor Betty Cass-Schmidt, Pequannock Township
17. Councilman Arthur Schmidt, Pequannock Township
18. Jay Wanzcyk, Asst. Mgr., Pequannock Township
19. Albert Chenard, Representative, Senior Citizen Awareness
20. Oliver Dufour, Representative, Senior Citizen Awareness
21. Dominick Federici, Representative, Senior Citizen Awareness
22. Lt. Orrie DuBois, Coordinator, Wayne Twp. Office of Emergency Management
23. Sylvia Coar, Resident, Pompton Lakes
24. Ganzala, Resident, Pompton Lakes
25. Councilman Lawrence DeMayo, Pompton Lakes
26. Elena Ubarrie, Resident, Pompton Lakes
27. Ralph Ubarrie, Resident, Pompton Lakes
28. Ray Pinney, President, Lincoln Park Democratic Club
29. George Shanoian, Town Historian, Lincoln Park
30. Mary Mottese, Resident, Lincoln Park
31. Nancy Pico, Resident, Lincoln Park
32. Jill Bray, Resident, Lincoln Park
33. Marina Porter, Resident, Lincoln Park
34. Robert Herlihy, Retired Policeman, Lincoln Park
35. Richard Lovallo, Recycling Coordinator, Lincoln Park
36. Edith Ganley, Resident, Lincoln Park
37. Carol Strum, Resident, Pequannock Township
38. Flo Sanders, Resident, Pompton Lakes
39. Richard Tissiere, President & Business Mgr., Laborers Local #472
40. Gene Grambo, Representative, Laborers Local #472
41. Craig Wask, Representative, Operating Eng., Local #825

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10:44 N.J. ALLIANCE-ACTI

township
of wayne

475 Valley Road
Wayne, New Jersey 07470
(201) 694-1800

TESTIMONY OF LIEUT. O. DU BOIS MARCH 14, 1990
TRANSPORTATION AND PUBLIC WORKS COMMITTEE
SUBCOMMITTEE ON WATER RESOURCES
PREAUTHORIZATION HEARING

GOOD AFTERNOON LADIES AND GENTLEMEN.

MY NAME IS LIEUT. ORRIE DU BOIS. I AM THE EMERGENCY MANAGEMENT DIRECTOR OF WAYNE TOWNSHIP, NEW JERSEY.

THE HISTORICAL RECORDS SHOW THAT FLOODING OF THE PASSAIC RIVER WAS OCCURRING ONE HUNDRED YEARS AGO BACK IN THE 1880'S AND 90'S. THE FLOOD RECORDS REVEAL FLOODING EVERY TEN TO TWENTY YEARS. ONE HUNDRED YEARS LATER AFTER BUILDING AND ALTERATIONS MADE IN THE PASSAIC RIVER BASIN BOTH IN NEW YORK AND NEW JERSEY, THE FLOODS NOW OCCUR NINE YEARS OUT OF EVERY TEN.

WAYNE TOWNSHIP UNFORTUNATELY LOST TWO SENIOR CITIZENS AND A VOLUNTEER FIREMAN IN RECENT FLOODS. OUR VOLUNTEER FIREMAN LEFT A YOUNG WIDOW AND HERE IS A YOUNG COUPLE DEPRIVED OF THE OPPORTUNITY OF HAVING A FAMILY AND ENJOYING PARENTHOOD.

AFTER ALL THESE YEARS OF ALTERING THE PASSAIC RIVER BASIN, THE ONLY PRACTICAL SOLUTION IS THE PASSAIC RIVER TUNNEL PROJECT. IT ENABLES US TO DIVERT FLOOD WATERS UNDERGROUND AND EXIT THEM IN THE AREA OF NEWARK BAY WHERE NO DAMAGE WILL OCCUR.

THERE ARE THOSE PEOPLE WHO BELIEVE THAT A BUY-OUT PROGRAM WILL BE SUCCESSFUL. I REJECT THAT PROPOSAL BECAUSE A FULL BUY-OUT PROGRAM WILL COST 1.8 BILLION DOLLARS AND STILL LEAVE US WITH A FLOOD PRONE RIVER SYSTEM. ADDITIONALLY, AS YOU KNOW, WE CANNOT FORCE A PERSON TO SELL THEIR HOME; AND THERE ARE MANY, MANY RESIDENTS WHO LIVE IN FLOOD AREAS IN THE ONLY HOME THAT THEY CAN ECONOMICALLY AFFORD.

THE FLOODING REPRESENTS A SUBSTANTIAL SOCIAL PROBLEM. WE HAVE BEEN PAYING APPROXIMATELY $85,000 FOR THE BUY-OUT OF FLOOD PRONE HOMES. THE AVERAGE COST OF A SINGLE FAMILY RESIDENCE OUTSIDE THE FLOOD AREA IN WAYNE TOWNSHIP AND THE SURROUNDING MUNICIPALITIES IS IN EXCESS OF $150,000. LET'S BUILD THE TUNNEL AND LEAVE THOSE RESIDENTS, THEIR FAMILIES AND FRIENDS INTACT IN THE HOUSING THEY CAN AFFORD.

WE HAVE IN PLACE AN EARLY WARNING SYSTEM WHICH WOULD BE PART OF THE FLOOD TUNNEL OPERATION. WE HAVE ALREADY BENEFITED FROM THE FUNDING OF THE SYSTEM.

SEVERAL WEEKS AGO, WE RECEIVED OUR FEMA INUNDATION MAP, ANOTHER CRITICAL STEP IN THE RIGHT DIRECTION REGARDING FLOOD EMERGENCY OPERATIONS. THE NEXT SEGMENT IS THE TUNNEL.

ONE OTHER SIGNIFICANT ITEM WE SHOULD BE AWARE OF IS THAT THE TUNNEL WILL KEEP INTACT AND THAT IS THE ECONOMY. THE CONSTRUCTION OF THE TUNNEL WOULD LEAVE THE ENTIRE ECONOMIC AND TAX BASE STRUCTURE IN PLACE. FIRSTLY, THE CONSTRUCTION OF THE TUNNEL WILL HAVE A DRAMATIC ECONOMIC UPLIFT FOR THE AREA BECAUSE OF THE NUMBER OF EMPLOYEES FOR CONSTRUCTING THE TUNNEL PROPER. SECONDARILY, THE LAND VALUES AND PRESENT TAX BASE OF ALL THE TOWNS INVOLVED WILL AT LEAST REMAIN THE SAME AND, IN THE LONG TERM, WILL BE ENHANCED. THINK ABOUT IT FOR A MOMENT; WERE WE TO BUY OUT ALL OF THE HOMES IN THE ENTIRE FLOOD AREA OF THE PASSAIC RIVER BASIN, THE INCREASE IN TAXES TO THE REMAINING RESIDENTS WOULD BE SUBSTANTIAL.

FOR YEARS NOW, YOUR DISTINGUISHED COLLEAGUE, CONGRESSMAN ROBERT ROE HAS LED THE FIGHT FOR A PERIOD SOLUTION TO THE NEARLY ANNUAL PROBLEM OF FLOODING IN THE PASSAIC RIVER BASIN. CONGRESSMAN ROE IS A LIFELONG RESIDENT OF WAYNE, NEW JERSEY. HIS OUTSTANDING CAREER OF PUBLIC SERVICE BEGAN AS MAYOR OF WAYNE TOWNSHIP. HE, LIKE I HAS WITNESSED THE PAIN AND SUFFERING OUR RESIDENTS IN THE SOUTHERLY PORTION OF WAYNE EXPERIENCE DURING THE RAVAGING OF THE PASSAIC RIVER AND THE POMPTON RIVER.

THE WAYNE TOWNSHIP OFFICE OF EMERGENCY MANAGEMENT IS RECOGNIZED AT THE FOREFRONT IN ASSISTING OUR RESIDENTS DURING TIMES OF FLOODING. YES, WE ARE PREPARED FOR FLOODING; YES, WE RESPOND TO THE NEEDS OF OUR RESDENTS DURING FLOODING; YES, WE HELP OUR RESIDENTS RECOVER FROM FLOODING. BUT THE ULTIMATE SOLUTION TO FLOODING, THE ONLY REAL MITIGATION IS THE CONSTRUCTION OF THE DUAL INLET TUNNEL PROJECT. THIS PROJECT CANNOT BE ACCOMPLISHED ON A LOCAL LEVEL. THE MAGNITUDE OF THIS PROBLEM AND ULTIMATE SOLUTION CAN ONLY BE ACCOMPLISHED BY THE FEDERAL GOVERNMENT.

THERE ARE 132 COMMUNITIES IN NEW JERSEY AND NEW YORK THAT ARE IN THE PASSAIC RIVER BASIN. THE ONLY LONG TERM SOLUTION IS THE DUAL INLET TUNNEL PROJECT. WE SUPPORT THE EFFORTS OF CONGRESSMAN ROE AND CONGRESSMAN GALLO AND ALL THE OTHER CONCERNED PARTIES IN IMPLORING YOU TO SUPPORT THE DUAL INLET TUNNEL PROJECT BEGINNING IN WAYNE AND EXTENDING TO NEWARK BAY.

I URGE THE CONGRESS TO FUND THE TUNNEL PROJECT AS EXPEDITIOUSLY AS POSSIBLE. I ASK THE CONGRESS TO MAINTAIN A POSITIVE OUTLOOK ON THIS PROJECT FOR THE BETTERMENT OF HUNDREDS OF THOUSANDS OF NEW JERSEY RESIDENTS WHO ARE NEGATIVELY IMPACTED BY THE FLOODING.

PLEASE HELP US.

THANK YOU VERY MUCH.

MORRIS COUNTY BOARD OF CHOSEN FREEHOLDERS

DIRECTOR
MICHAEL DEDIO
DEPUTY DIRECTOR
JOHN C. O'KEEFFE
ANTHONY R. BUCCO
PATRIC J. HYLAND
CAROL J. MURPHY
PETER J. O'HAGAN
JOHN R. SETTE

COUNTY COUNSEL
ARMAND L. D'AGOSTINO
COUNTY ADMINISTRATOR
FRED J. ROSSI
CLERK OF THE BOARD
VIRGINIA SHEA

Mar.14, 1990

Statement of
The Board of Chosen Freeholders of Morris County
to the
Subcommittee on Water Resources of the
House Committee on Public Works and Transportation

Mr. Chairman, Members of the Committee, Ladies and Gentlemen:

On behalf of the Board of Chosen Freeholders of Morris County, let me thank you for allowing us to have opportunity to address this Subcommittee on what we consider a matter of life and death in our part of the world.

My name is Mike Stoddard and I am the Director of Media Relations of Morris County where I am employed by the Board of Chosen Freeholders. I also serve as the Deputy Public Information Officer for the Morris County Office of Emergency Management.

I was asked to attend, not only in my official capacity, but also to be a resource person to you as a former Night Editor of the Passaic Herald-News, a newspaper that has its entire circulation in the Passaic River Basin and where I worked for 17 years covering the local news and the vagaries of the Passaic River.

The Board of Chosen Freeholders, the governing body of Morris County has asked me to submit, for the record, a certified copy of its resolution supporting the construction of the Pompton/Passaic Dual Inlet Tunnel plan to control flooding in the Passaic River Basin.

The Board has also asked me to convey to you its ongoing support for the project and its determination to do whatever is necessary to end the ever-present threat to our river towns.

Over the years the Board has repeatedly endorsed the projects advanced by the U.S. Corps of Engineers to lessen the impact of floods in the Basin. The review of the proposed tunnel project by county staff and consultants, indicates this is the best solution yet proposed.

Offices in Administration & Records Building, Ann Street, Morristown, New Jersey 07963-0900 (201) 285-6010

The County's own Flood and Drainage Study Committee, which has a commitment of $23 million from the Freeholders to minimize local flooding problems, has reported that many of the local public works programs can only achieve full success after the Tunnel project is completed.

But the point we are making is that our support is not limited to simple statements--we are putting our money where our mouths are.

Over the years, the Freeholders have been in constant touch with the affected municipalities and the Board's position reflects the concerns of the local officials. We know because it is our Emergency Management teams who go in to the flooded areas to perform the rescues.

It is distressing that the many groups opposing any type of flood control other than expensive, and in our opinion unworkable buyouts of settled communities, have never appeared before the Board of Chosen Freeholders to voice their opinions and yet they find the press willing to air their unscientific analyses of what is happening.

As Night Editor I sometimes chided my reporters telling them, "Never let the facts interfere with a good story," when I felt they had been taken in by snake oil salesmen and women. My warnings have not changed, and whether they are hustling snake oil or home made flood remedies for an imaginary ecological fairyland, they are still selling snake oil, not facts.

I, and members of my Board have rowed, driven in rescue vehicles and walked the streets of the flooded towns, on some occasions searching for bodies. We know the price the raging waters a Passaic River flood can exact. It is too high, especially when a cure is in the offing.

We urge you to support this project and give you our solemn promise that Morris County will do whatever it can to help.

In closing let me thank you again for this opportunity to be heard and if you have any questions, I will be glad to answer them or get you the answers.

Board of Chosen Freeholders

Morris County, New Jersey

Resolution No. 25

Adopted March 22, 1989

BE IT RESOLVED by the Board of Chosen Freeholders of the County of Morris in the State of New Jersey as follows:

1. That this Board goes on record in support of the Passaic River Tunnel flood control project as presented by the Army Corps of Engineers.
2. That the State of New Jersey provide the required funds to match that portion of the total project cost needed to complete this project.
3. That a copy of this resolution be distributed to all our local state and federal representatives, the honorable Governor of the State of New Jersey and the Commissioner of the New Jersey Department of Environmental Protection.

I hereby certify the above to be a true copy of a resolution adopted by the Board of Chosen Freeholders of the County of Morris at a regular meeting held. March 22, 1989.

Virginia Shea

CLERK

Mr. NOWAK. We have other projects, to discuss, and I'd like to continue on and bring before the subcommittee Mr. Peter deFur, Staff Scientist with the Environmental Defense Fund.

FUNDING FOR NAVIGATIONAL AND FLOOD CONTROL PROJECTS OF THE U.S. ARMY CORPS OF ENGINEERS

TESTIMONY OF PETER deFUR, STAFF SCIENTIST, ENVIRONMENTAL DEFENSE FUND

Mr. DEFUR. Mr. Chairman and members of the committee, I am Peter deFur, Staff Scientist for the Virginia Office of the Environmental Defense Fund in Richmond, Virginia, and I am pleased to have the opportunity to make my comments here on the operation and maintenance activities of the Army Corps of Engineers.

My testimony this afternoon is based upon research projects that I've conducted that cover the regulatory management and policy issues of dredging and the disposal of dredge material, in general, throughout the United States.

It's also based on my review of reports and documents on wetland loss and coastal erosion, specifically in the Gulf Coast area, on my capacity as a member of the Board of Directors of the Coalition to Restore Coastal Louisiana and on my participation in the Wetlands Restoration Project of the Environmental Defense Fund.

My comments are directed toward two very specific points this afternoon. The first one is how it is that the current activities of the Army Corps of Engineers may be more effectively directed toward coastal restoration and mitigation of wetland loss, specifically in the Gulf Coast, and what new means of addressing the serious problem of coastal erosion in the Gulf Coast might be undertaken by this committee in addressing the Corps of Engineers' activities.

Mr. Chairman, you and the committee are well aware of the activities and responsibilities of the Corps of Engineers and that in conducting their responsibilities to maintain navigable waters and the harbors, they're responsible for over 25,000 miles of channels, over 400 harbors.

In doing so, they generate 250 million to 400 million cubic yards annually of dredged material, and that's a very significant point.

That dredged material is deposited in another site, and that's the point. Most of that material comes from the Gulf Coast States.

Most of that material which is originated there from the Mississippi River Valley, the Mississippi River Valley drains most of the United States, and, in fact, most of the watersheds of the United States drain into the Gulf Coast, so it's not surprising that most of the dredging of that material that washes off of the land takes place there, and most of it is deposited in the Gulf.

In fact, the EPA has designated 40 sites within the Gulf for the deposition of that material. Most of that deposition takes place in the coastal waterways and in the open waters of the estuarine areas.

Most of this material, according to corps reports and according to my research and research conducted by the Office of Technology and Assessment, is deposited freely, the smallest percentage is used for beneficial uses, and another small percentage is contaminated and cannot be used for any other purpose and must be handled differently.

The issue of disposal is important for two reasons. Number one, there are numerous beneficial uses that can be made of this dredged material.

Sand material is already disposed of coming out of the Mississippi River and is sold to construction companies. Other dredged material can be used within the Gulf Coast region for such projects as beach nourishment, wetlands restoration, marsh creation.

However, one of the prime considerations in determining the disposal site for dredged material, as you know, is the cost.

The cost must be considered in evaluating the disposal site, and this is where this committee has a great deal of power to influence it.

If this committee would so designate, then sufficient appropriations could be mandated at the outset to ensure that this dredged material is used beneficially at the outset.

In the State of Florida, this issue is so important that their State has passed such a policy that all material that is dredged shall not be deposited offshore, but shall be used beneficially, because they have found that they have to deposit it offshore one year, and five years later, at a greater cost, they have to go recover it and use it for a beneficial use.

If initial projects conducted by the Corps of Engineers can be so designated that the additional funds for beneficial uses of that dredged material are mandated in that initial appropriations, then we would find an additional savings of money from not having to go back and restore, using additional costs and additional measures.

Additionally, the Corps of Engineers, through appropriations and authorizations bills, can be involved in numerous wetlands mitigation and restoration projects, specifically in the Gulf States.

The wetlands has an extensive track record in wetlands activities in dredged soil disposal, and they have a current research program in wetlands projects.

With this expertise, the Corps of Engineers has the ability and has the appropriate nature to conduct wetlands mitigation projects.

In the State of Louisiana, specifically, there are several identifiable projects which have been discussed at the state level and with the corps that could be initiated in a relatively short period of time that would go a long way toward mitigating the serious problem of wetlands loss within the Gulf.

One of them is to provide matching funds for the State funds that have been committed by the State of Louisiana dedicated for coastal restoration.

Another is to provide Federal cost sharing for new coastal projects, providing that there is equal and mandatory cost sharing by the State; to fund sediment diversion projects in Louisiana, which would be very effective and more effective than some of the planned projects in restoring coastal wetlands; and finally, to incorporate beneficial uses as part of all project costs rather than add on or have them as ancillary costs.

The Federal Government, and this committee, in particular, plays a key role in determining the commitment to solving such large environmental problems as coastal erosion and wetlands loss.

Through that action, the Federal Government has the opportunity to provide both the policy and the means to implement that policy of reversing the abuse of our valuable resources.

At a time when the State of Louisiana is in such difficult economic conditions, the people of that State have voted to devote and commit $5 million of their own tax money to restore their own coastal wetlands, and this authorization is the opportunity for the Federal Government to match that commitment.

Thank you, Mr. Chairman and members of the committee, for this opportunity to speak this afternoon, and I'll be happy to answer any additional questions or provide any additional information which I am able to.

Mr. **NOWAK**. Thank you very much. You bring to us a couple of areas that we are looking at this year to try to expand, if you will, the corps mission to accomplish some of the beneficial uses that you've talked about.

We also are looking at another aspect of what we do with some of the bottom sediment in some of the ports and harbors that are dredged on a regular basis.

It may necessitate a different kind of disposal for different areas of the same river or expanded channel that the corps is regularly dredging.

But there's no question that there is an awful lot of interest in wetlands mitigation and beach nourishment, as well as solving some of the problems of erosion, taking the amount of good sand or soil that could be moved for perhaps a little additional cost and creating a great new beneficial use in these environmental areas.

We're going to try to work with the corps to encourage them to do so and, hopefully, at the same time, expand their mission. Thank you for your testimony.

Let me turn to Arlan Stangeland at this time.

Mr. **STANGELAND**. Thank you, Mr. Chairman. I don't have any questions.

I appreciate your testimony, and certainly there ought to be a look at the policy of where we put this dredged soil and where we can use it in a beneficial way and utilize it in that fashion.

I appreciate your concern.

Mr. **DEFUR**. If I can add one final comment, there's an important item that you mentioned there, and that is the environmental protection role of the Corps of Engineers.

They are mandated by law to consider various issues, and one of the positions that several environmental groups have taken is that the role of environmental protection in the Corps' mandate could be elevated to be equal with navigational and flood control protection, which would somewhat change their mission.

Mr. **NOWAK**. Thank you again, and thank you for your support.

[Mr. deFur's prepared statement follows:]

ENVIRONMENTAL DEFENSE FUND

Plantation House
1108 East Main Street
Richmond, VA 23219
(804) 780-1297

Testimony of Dr. Peter deFur

Staff Scientist

Environmental Defense Fund

Richmond, Virginia

BEFORE

THE WATER RESOURCES SUBCOMMITTEE

OF

THE HOUSE PUBLIC WORKS AND TRANSPORTATION COMMITTEE

on

AUTHORIZATION FOR THE ARMY CORPS OF ENGINEERS

MARCH 14, 1990

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Mr. Chairman:

I am Peter deFur, staff scientist for the Virginia office of the Environmental Defense Fund. I am also on the Board of Directors of the Coalition to Restore Coastal Louisiana. I am pleased to have the opportunity to present testimony before this committee concerning funding for navigational and flood control projects of the Army Corps of Engineers.

Under the sponsorship of the American Association for the Advancement of Science, I was the recipient of an Environmental Science and Engineering Fellowship, and carried out my research program at the Environmental Protection Agency for the summer of 1989. The research I completed was on dredging projects, and the regulation, management and policy issues regarding the disposal of dredged material, as carried out by the Environmental Protection Agency and the Army Corps of Engineers. As part of that research, I reviewed the existing reports on dredging projects, components of the regulatory process, and the impacts on coastal wetlands and other aquatic habitats. In addition, as a Board member of the Coalition to Restore Coastal Louisiana, I have commented on and reviewed the reports on coastal restoration in the Gulf of Mexico generally, and in Louisiana specifically. As a scientist with the Environmental Defense Fund, I participate in the wetlands programs in the Chesapeake Bay area, especially in Virginia, by reviewing and commenting on permits and state programs and regulations.

There are two general areas on which I will comment and offer suggestions regarding how the present programs may be improved to provide a greater level of protection for our valuable coastal wetland resources. These two areas are how the goals, priorities, and mission of the Army Corps of Engineers influence present operations, and the extent of mitigation and restoration activities conducted, especially in Louisiana.

Dredging Projects of the Corps of Engineers

By way of introduction to the problem, I will comment first on the relationship between coastal restoration and dredging projects . The dredging of canals, deepening channels, building levees amounts to an annual production of 300 -400 million cubic yards of dredged material, according to reports by the Office of Technology Assessment, the Corps of Engineers and my own research. The operations and maintenance dredging accounts for by far the bulk of the dredging projects in the United States at the national level. On a regional level, the single largest source of material dredged from navigable waterways is the Gulf of Mexico. The dredging projects in the Gulf include maintenance of the waterways in the rivers that drain the Mississippi watershed, covering much of the continental United States. There are more than 40 sites in the Gulf designated for disposal of this material, although not all of the dredged material is disposed at a site that has been permanently designated by the Environmental Protection Agency. Material may be deposited on a temporary site or single use site if it is deemed necessary by the Corps of Engineers. Thus, the impact of Corps projects is greatest in the Gulf region, from the standpoint of dredging activity and disposal of material.

For the present discussion, it is important to point out that the factors to be considered in approval of the dredging project, and in determining the site for the disposal of the dredged material both include financial factors as a prime, and perhaps final consideration. The decision about where to dispose of the dredged material can be made, and according to some sources is often made, on the basis of the short term costs of that project. Projects may be initially funded at a level adequate to provide for several disposal options, but budget constraints and delays can radically alter that situation. When the disposal options are finalized and approved by the Corps district engineer, the costs of disposal are taken into consideration. The long term financial costs and benefits and the regional needs or environmental costs and benefits may be overridden by the short term project costs.

The issue over disposal site is an important one in considering funding level and coastal restoration. Total project costs include disposal as well as the dredging itself. To stay on budget, the least expensive disposal option is often employed, and the dredged material is frequently disposed in open estuarine or coastal waters. This material not only comprises the largest amount of identified pollutants in these waters, according to an Office of Technology Assessment report, but also is a loss of sediments that could be used to nourish coastal habitats in the effort to stem erosion. In fact, the dredged material disposal issue has become so critical in the Gulf as a region, that the state of Florida has adopted an Ocean Policy that calls for the use of all clean sediment for beach nourishment or similar projects. In the short term, it may be less expensive to dispose of the dredged material in open waters, but if that same material needs to be dredged up within a few years to be used for beach nourishment, the long term costs will outweigh the short term savings.

Use of dredged material for coastal restoration has been advocated and endorsed by the state of Florida, as noted above, by the Coalition to Restore Coastal Louisiana and in the Louisiana governor's task force report on coastal restoration. Widespread enactment of a program to use dredged material for coastal restoration and erosion control, however, represents a substantial departure from current policy and practice. Based on data from the Army Corps of Engineers, my research and that of the Office of Technology Assessment concluded that a small fraction (less than 10 %) of the dredged material is put to beneficial uses, and not all of those involve coastal erosion or wetland restoration projects. The factors considered in choosing among disposal options are the cost, environmental damage and level of contamination, if any, in the material, as well as technical issues. The potential for beneficial use of the dredged material may be considered, but not of necessity and only within existing cost constraints. The problem of contamination, the potential for environmental damage, and the cost could be weighed in conjunction with the potential for beneficial use. In some cases, beneficial uses would be an alternative to aquatic disposal, thereby preventing environmental damage from typical overboard open water disposal.

There are numerous projects that provide the opportunity for beneficial use of dredged material in the Gulf region. Some of these include beach nourishment using clean sand, wetland creation using finer grand materials, back filling of canals that are no longer in use and wetland nourishment with fine grain materials. The Corps has some pilot programs in these areas, but the importance of these needs to be emphasized via official policy at the highest level.

The policy of the Corps presently places the project emphasis on historical goals and obligations of the Army Corps of Engineers. But the time has passed when such activities can be conducted outside the context of geological processes that threaten the existence of the coasts themselves. Placing the traditional activities of the Corps within a modern and more relevant context requires changing the mandate of the Corps to incorporate wetland restoration and coastal protection on an equal basis with navigation structure and flood control maintenance.

Corps Mitigation and Restoration Projects

The Corps of Engineers is charged with maintaining the nation's navigational waters and flood control structures. In carrying out those obligations, the Corps has conducted, and continues to conduct dredging activities to construct channels, deepen channels, build and reinforce levees and maintain flood control structures. A recent report by the Corps stated that over 25,000 miles of channels and more than 400 harbors are maintained annually. The result of this dredging in coastal regions, particularly in the Gulf, is an alteration of the waterflow and sediment deposition patterns and processes. This dredging activity is only part of the total amount conducted in the United States, especially in the same Gulf coast region. Private and business activities account for nearly as much volume of dredged material as the Corps activities.

In the critical Gulf coast region, particularly Louisiana, the deltaic wetlands are criss-crossed with a system of canals and waterways constructed and/or maintained by federal and private groups. The changing water flow from fresh water sources, the salt water influx from coastal channels, the removal of sediments, and the diversion of sediment laden river waters all contribute to the serious condition of coastal land loss. This committee well knows the extent of land loss in coastal Louisiana and the magnitude of the problem created by loss of habitat and livable land. The dredging activities conducted by and regulated by (in the section 404 program of the Clean Water Act) the Corps of Engineers are part of the cause of the land loss. It is only logical that the Corps of Engineers now participate fully in the process of coastal restoration and wetland protection.

Two areas of Corps activities are related to wetland processes. One of these, regulation of the section 404 program of the Clean Water Act, is not being considered within the present context. The other has to do with the routine dredging and maintenance activities being considered here, and described above. The Corps already has an extensive program related to these routine dredging projects and the program involves fate and effects of dredged material and contaminants, technological aspects of dredging, and a wetlands research program. Thus, it is not new for the Corps to deal with the processes and problems associated with dredging in wetlands and related issues.

Within the existing mandate of the Corps, wetlands restoration and coastal protection are not specifically and individually identified projects with high priorities. The present authorization bill presents the opportunity to identify and fund wetland restoration measures and projects that would begin the process of reversing the loss of land in coastal Louisiana, as well as in other states. Indentifiable projects that could be funded through the present authorization include:

- provide matching funds for the state funds committed by the state of Louisiana for coastal restoration
- provide federal cost sharing for new coastal projects, with equal and mandatory involvement of appropriate federal and state agencies
- fund the sediment diversion project known as the Davis Pond project on an accelerated schedule, as the project with the highest benefit/cost ratio
- incorporate beneficial uses of sediments as part of the project costs, with the contingency that such funds are dedicated for that use

The federal government plays a key role in determining the committment to solving environmental problems as large and serious as the loss of wetlands and coastal lands in the Gulf. In Louisiana, where the problem is the most critical, the federal government has the opportunity to provide both the policy and the means to implement that policy of reversing the abuse of this valuable resource. At a time when the state of Louisiana is in difficult economic conditions, the people voted overwhelmingly to commit state funds to coastal restoration. This authorization is the opportunity for the federal government to match that committment.

Mr. Nowak. Let me now call Erik Stromberg, who is the President of the American Association of Port Authorities.

TESTIMONY OF ERIK STROMBERG, PRESIDENT, AMERICAN ASSOCIATION OF PORT AUTHORITIES

Mr. Stromberg. Mr. Chairman, it's my pleasure to be here.

We're talking about a very important issue, and it's worth waiting for to make what can be a very brief point, and unless you have objections, I'll make this extremely brief and even more brief than my oral statement was intended to be.

We have submitted a more lengthy statement for the record, that outlines a number of positions that we have come to with now over three years' experience with the Water Resources Development Act of 1986, for which your leadership is greatly appreciated.

The work of this committee in achieving that landmark legislation was critical and important, as was the follow-up legislation in 1988.

Now we have 1990, and 1990 looms ever more important. We need authorization bills on a regular two-year cycle. That's critical.

It's critical for our ports as they gather the necessary local support, run through the planning and environmental hurdles, get the local funding, get the political support, they want to know that when they're ready on their side that the Congress is ready on its side to move forward with project authorizations.

Your support on that has been appreciated in the past and will be greatly appreciated in the future.

I don't think that I will go into any great detail, Mr. Chairman, on any of the specific items that I've mentioned in our testimony.

I will mention three issues that loom to be important to us right now. There are others, but I will mention three very briefly.

The disposal of dredged material is probably one of the most critical issues facing the public port industry today, and the previous speaker's testimony, I think, points out something that is very important for all of us to get hold of right now, that to a very great extent the treatment of dredged material, the management of dredged material, is not an engineering problem, it's not a scientific problem, it's a public relations problem.

The more that we understand and others understand that dredged material is not necessarily bad stuff, in fact, a very small percentage of it is contaminated, and most of it is going out into the ocean after it passes rigorous EPA testing, and there are numerous beneficial uses for dredged material.

They do tend to be more expensive, but they're there. Sand right now, clean sand is being used almost all of it, and, in fact, I think there's even markets being created for the sand.

It's valuable stuff. But the beneficial aspects of dredged material and the fact that it's not necessarily bad stuff is a message that we've got to get out to our people around the country and individual ports have to get out to their local constituents.

Believe me, sir, it's an uphill battle, but it's one that we have to wage and we have to win if we're going to keep dredging and keep our ports alive.

Very briefly, sir, two other points. We had in the 1986 fast tracking legislation that was to allow ports to move ahead with their programs under sections 203, 204 and 205.

Simply put, that's not working as it should be. Some problems with navigation servitude and the enforcement of corps permits and some problems with the permitting process itself impede that process from moving forward, and we would welcome the opportunity to work with this committee to develop the kinds of amendments working with the corps as well that could make section 204 a meaningful process so that we can use it.

Lastly, the use of local dollars, very hard earned, very tough to come by under the cost sharing, is not simply available to the local sponsor because of what the corps says are restrictions in the Antideficiency Act, where they have to require ports and local sponsors to kick in local funds well in advance of their utilization for the project itself, with the interest not going back to the local sponsor, whose funds they are, but going to the Federal Government.

We are told that a relatively simple amendment to the authorization would correct this at no risk to the Federal Government, allow our port agencies, who have all the incentive in the world to make sure that project keeps tracking ahead on time, to put monies in escrow accounts available when they're needed and not months and months before, with that interest gone forever to the local sponsor.

I don't need to tell this committee the important role that public ports play in our national economy, as well as state and local economies, and in our national security interests.

The development and maintenance of navigation channels is an essential component allowing ports to fulfill their intended role.

We pledge to work with this committee in however means that you require to ensure that we get an authorization bill in 1990, 1992, and on a regular two-year cycle from here on out.

I'd be happy to answer any questions that you may have regarding my remarks. Thank you, sir.

Mr. NOWAK. Thank you very much. We appreciate your testimony, and we look forward to working through some of those problems, this so-called fast tracking of projects.

We know that this could be of some great benefit if we could get that to operate a little better, and you make a good point when you talk about a letter of credit.

That would probably be more than adequate for the purpose of this statute, and we'll look at those. You made other good recommendations in your written testimony that we've had an opportunity to review, and we'll certainly look at those as well as we move forward in working with your organization in the future.

Mr. Stangeland?

Mr. STANGELAND. Thank you, Mr. Chairman.

Mr. Stromberg and our next witness, I feel for you. The mind can only absorb what the seat can endure.

You're located here in Washington, aren't you, Mr. Stromberg?

Mr. STROMBERG. Yes, sir, I've got all day.

Mr. STANGELAND. No, but I mean we want to work with you in the future. I don't have any specific questions, but certainly we well realize the importance of port development, and we realize also that the disposal of dredged soil is one of the big problems, and there should be some reasonable solutions or ways of approaching it.

You made good points, and we look forward to your input as we go through the process.

Mr. STROMBERG. Thank you, sir.

Mr. STANGELAND. We certainly hope to continue the biannual authorization process, which was one we picked up in the last Congress, and now we're moving in that direction in this Congress. Thank you.

Mr. STROMBERG. I appreciate that.

Mr. NOWAK. Thank you very much.

[Mr. Stromberg's prepared statement follows:]

STATEMENT OF THE
AMERICAN ASSOCIATION OF PORT AUTHORITIES

BY

ERIK STROMBERG
PRESIDENT

BEFORE THE
SUBCOMMITTEE ON WATER RESOURCES
OF THE
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
UNITED STATES HOUSE OF REPRESENTATIVES

MARCH 14, 1990

ON

THE WATER RESOURCES DEVELOPMENT ACT OF 1990

Good morning Mr. Chairman. My name is Erik Stromberg. I am President of the American Association of Port Authorities. AAPA represents virtually every public port agency in the United States as well as the major port agencies in Canada, Latin and South America and the Caribbean Sea nations. Our members are public entities established to fulfill mandated public purposes, primarily economic development through the facilitation and promotion of waterborne commerce.

Mr. Chairman, I commend you for holding this hearing on the need for a 'Water Resources Development Act of 1990.' We are grateful to the Subcommittee for its hard work that led to the landmark passage of the 1986 Act, which revived our Nation's water resources development program, and the follow-up 1988 legislation. As a result, many long-needed deepdraft navigation projects have been either completed, or completed through some beneficial increment, or are now under construction. Nevertheless, there have been some notable disappointments and setbacks primarily due to controversies over where to relocate dredged material. In addition, bringing a project to the construction phase with the Corps of Engineers (Corps) as a partner has been, without exception, a trying and frustrating experience for local sponsors. Some of our difficulties stem from the understandable consequences of changing standard Corps operating procedures, and some of them are due to factors beyond the agency's control. However, despite rhetoric espousing the "new partnership," we have a long way to go.

On the positive side, public ports are extremely encouraged by the improved working relationship between the Corps and the Environmental Protection Agency. The recently signed Section 404 mitigation MOA is simply the latest sign of this improvement. We view the MOA as a positive step because it encourages better regional planning -- a key to reducing the regulatory quagmire we now encounter. There are several other initiatives now underway which are intended to bring more consistency and predictability to management of dredged sediments, all of which are vitally important to seaports.

In 1988, Congress enacted a modest, but extremely important, follow-up authorization bill -- a bill that we hoped would put us back firmly on a two-year cycle. If I leave one message with you today, Mr. Chairman, it is that we must maintain this two-year schedule. If a project is economically justified, environmentally acceptable, and is supported financially and otherwise by the local sponsor throughout the arduous planning process, a dependable authorization timetable is needed. Biennial authorizations are critical for effective planning and budgeting in state and local government.

The 1986 Act placed greater procedural, as well as financial, burdens on the local sponsor. We agreed to those changes in our historic partnership with the federal government in order to get the Corps to work again on many long overdue projects. It should be noted that this partnership goes back to the beginning of our country and is based on well-established national, regional, state, and local interests in our deepdraft channel navigation system. At this point, it is our objective to be full partners with the federal government in the development of our Nation's navigation system. Public ports as local sponsors have both the incentive (through cost-sharing) and the expertise to contribute to the system's efficient development. At this time, with over three years of experience with the Act, there are several changes we would like you to consider that would improve the federal/nonfederal partnership. They include the following:

The Allocation of Dredged Material Disposal Costs. The disposal of dredged material is often the most difficult problem associated with a harbor channel improvement. When the Corps of Engineers studies the best placement options for dredged material, in concert with a host of environmental and natural resource regulatory agencies, all potential alternatives, including the various land and water-based alternatives, are considered equally in the analysis.

On the other hand, all disposal alternatives are not cost-shared equally. If a confined site is the best alternative, the cost of building it is a sponsor responsibility which can be deducted from the 10 percent repayment requirement. A similar project exclusively using open water disposal avoids this cost. The disposal of dredged material from federal channel bottoms, regardless of method of disposal, is clearly integral to the overall project and should be treated as such in our cost-sharing policies. AAPA recommends that the costs of constructing confined disposal facilities should be considered part of the total project cost and shared according to the percentages established in Section 101(a)1.

Sections 204 and 205. Sections 204 and 205 of WRDA 86 were intended to speed up the process of building a federal navigation project by allowing the sponsor to construct the project and then seek reimbursement from Congress. These "fast tracking" provisions were part of a package to make the new cost-sharing more palatable to local sponsors. Because of the rapid changes in international trade and transportation, fast tracking is now needed more than ever. However, the 1986 provisions are overly restrictive with respect to the Corps' oversight of the process, and confusion surrounds the roles and responsibilities of the nonfederal sponsor. For example, the Corps is not willing to use its federal navigational servitude powers on behalf of the nonfederal sponsor even though almost all navigation improvements require the use of these exclusively federal powers.

Another major reason why these provisions are overly restrictive is that they require additional permits after the project has been approved through the exhaustive National Environmental Policy Act review. With NEPA's environmental analysis, already required, the additional permit requirements of Section 204 are redundant and expose the sponsor to another round of potential litigation on the state level. Mr. Chairman, we would like to work with you on amendments to Section 204 that would make Section 204 as useful as originally intended.

With Section 204 made workable, we would also like to see it made applicable to the construction of continuing authority small navigation projects (Section 107, P.L. 86-645). We see no reason why the potential cost savings should not be made available to small navigation project sponsors.

Lost Interest on Project Sponsor Funds. A collection of federal government procurement law and regulation, collectively referred to as the "Antideficiency Act," is resulting in the loss of thousands of dollars in interest revenue to project sponsors. The law prohibits federal agencies from obligating federal funds for a project if the funds necessary to pay the entire obligation are not deposited in the U.S. Treasury. Therefore, the Corps withdraws sponsor escrow account funds long before it is necessary to pay a construction contractor (because the contractor is not paid until project segments are completed satisfactorily).

Interest on the funds taken by the government from the sponsor, but not paid to the contractor for months (or years), is lost to the project sponsor. Nonfederal sponsors want to pay the bill when the bill is payable, not when construction begins or at any other arbitrary advance payment schedule. With the use of escrow accounts or letters of credit, there is zero risk to the government for requiring nonfederal funds concurrently with paying the contractor. This committee can establish that nonfederal payments are due in full at the time the Corps makes payments to the contractor and no sooner. If sponsor funds are not made available within twenty-four hours of a request by the Corps, the Corps can simply withdraw the necessary funds from the escrow account.

Economic Reevaluation of Authorized Projects. Many of the deepdraft commercial navigation projects authorized in 1986 are being built in phases. Constructing the project in phases is beneficial to both the federal government and to the nonfederal project sponsor. However, the Corps is now requiring a new cost-benefit study to be completed for each phase despite the fact that the project is congressionally authorized to deeper and wider dimensions. After years of waiting for the project to be planned and approved, the language authorizing the project should be the final word. This policy will lead to further delay in necessary channel improvements.

The Corps' New Single Beneficiary Policy. The Corps has a new "single beneficiary" policy that is unrelated to the economic accrual of national benefits when evaluating a navigation project. The new policy is based on the ownership of a private terminal on a navigation channel, rather than on transportation cost savings or the number of shippers benefiting from the federal channel. Under the new policy, if a single privately owned company is located on a channel, there is no federal interest in improving the channel regardless of the distribution of benefits. However, under the former policy, the distribution of benefits was critical to defining whether the channel improvement served multiple beneficiaries. AAPA supports the former policy and the legislation needed to codify it.

We agree, for example, that if company X owns a single terminal on a channel dedicated solely to shipping its own products, the channel serving X should be designated a single user channel and not in the federal interest. On the other hand, if company Y owns a terminal serving the shipping needs of several shippers, and can lower the unit cost of a product with a more efficient navigation channel providing transportation cost savings, there is a recognized federal interest. The new Corps policy does not differentiate between company X and company Y, ignoring the multiple-beneficiaries of company Y's navigation channel.

Section 10 Permit Enforcement. Since 1899, Section 10 permits for utility crossings of navigable waters have been required from the Corps. Under WRDA 86, the cost of relocating utility transmission lines for channels of greater than 45 feet in depth is shared 50-50 by the project sponsor and the utility owner, and the Corps will compel the removal of the utilities. As a matter of policy, however, the Corps will not compel utility relocations for channel depths of less than 45 feet except as a last resort, leaving the port to try to find other legal authorities (the 1986 Conference Report clarified that the law did not change existing responsibilities for relocations at this depth). Unfortunately, the only law applicable in most states is the Corps' own reservations of the right to compel removal or relocation of utilities contained as permit conditions in the Section 10 permits. As a result of this poorly drafted legislation, local sponsors are given the responsibility for utility relocations without any corresponding delegation of federal authority to accomplish it. AAPA would like Congress to direct the Corps to enforce its own permits. Alternatively, AAPA would support an amendment that would authorize the project sponsor to invoke and enforce existing Corps permit conditions to compel utility relocations by the utility owners.

Authorizing Disposal Site Management Fees. Where multiple user disposal sites are employed in a harbor area, and when it is agreed on the local level that user fees are necessary to properly manage and monitor the site, the Corps needs the authority to keep these funds at the district level. If potential fees must be sent to the U.S. Treasury, such a solution is not possible. A fee system has worked well at the Craney Island site in Hampton Roads, Virginia, but it was only possible because of 1946 project-specific authorizing legislation allowing the district to keep the funds in local accounts. A provision is needed in this bill to authorize the Corps to manage these potential funds at the district level.

Military Benefits Adjustment. AAPA strongly supports an amendment that would allow the Secretary to reduce the local share of project costs to the extent that there are direct and quantifiable benefits to the military.

In-Kind Services for Feasibility Studies. WRDA 86 limits the amount of in-kind services a project sponsor can provide as part of its cost share for a feasibility study to 50 percent of the sponsor share (or 25 percent of the entire study). AAPA supports amending WRDA 86 to allow the entire project sponsor study cost share to be provided by in-kind services. This amendment is in keeping with our equal partnership objective and our responsibility for 'project proponency.'

Mitigation Land Purchase Cost-Sharing. The Corps has determined that land purchased for mitigation purposes is a 100 percent local cost which can be offset from the ten percent repayment. Section 906(c) of WRDA 86 states that costs incurred for mitigation "shall be allocated among authorized project purposes in accordance with applicable cost-sharing allocation procedures, and shall be subject to cost-sharing or reimbursement to the same extent as other project costs are shared." The clear intent of Congress has been undermined by the Corps in their interpretation and should be clarified so that land purchases for mitigation are subject to Section 906(c). Alternatively, and with similar effect, land costs could be accounted for the same way local costs are for flood control projects, as part of the total project cost before cost-sharing. This change also should help encourage better environmental mitigation.

Mr. Chairman, I would also like to take this opportunity to comment on the President's proposed ad valorem tax increase for harbor maintenance. In general, we believe the proposal would raise much more than 100 percent of what is necessary to maintain the commercial ports used by the shippers paying the tax. Included in the definition of ports eligible for Harbor Maintenance Tax funds are 480 shallow draft harbors (less than 14 foot depth) where neither the harbor maintenance nor the inland fuel tax is collected. Next year, the Corps has budgeted $77 million for the maintenance of these shallow draft harbors. On the other hand, the top fifteen revenue producing U.S. ports provide about 80 percent of all the funds collected by the tax (currently about $125 million of the $160 million) based on 1988 cargo values. Although it might be beneficial to have a dedicated revenue source to fund the regular maintenance of the U.S. commercial navigation system, the proposed tax is excessive and largely unrelated to federal services, as now defined, rendered to the shippers paying the tax. Furthermore, the surpluses could end up like so many other "trust funds," used solely for reducing the budget deficit.

Of the long-term port development issues that must be addressed by Congress, the constraints put on our ability to recover the nonfederal cost of project development by Section 208 of P.L. 99-662 is one of the most important. Section 208 is so restrictive that it may never be used. Bond counsel advise that it is practically useless as a means of financing a project. Aside from our fundamental concern over the equity of this provision (nonfederal sponsors have assumed increased costs to construct a federal project without being given any meaningful additional authorities to recover those costs), this provision so narrowly defines eligible payees (channel users) as to create an impossibly high fee schedule on those leading innovators who have developed new and efficient vessels. Fundamentally, the range of channel users of navigation projects cannot be assessed a fee commensurate with their resulting benefits. Moreover, the approach taken under Section 208 is inconsistent with the Act's approach on the federal .04 percent "harbor maintenance user fee," which is applied across-the-board. Within each harbor, ports need a similar capability.

Mr. Chairman, thank you for your leadership in both developing and conserving the Nation's water resources. Seaports provide a tremendous national and regional economic impact as well as play a vital role in our national defense. In order for our ports to perform their role, the Nation's deepdraft navigation system must be developed and properly maintained. Thank you for the opportunity to present our views to the Committee today.

Mr. **Nowak.** Now we'll have I think our last series of witnesses, John Sulpizio, who is the Acting Director of Port of Sacramento, and he will be accompanied by Larry Mallon, Special Counsel for the Port of Sacramento.

Gentlemen, welcome, and, again, thank you for your patience. You may proceed as you desire. Your full statement will, of course, be made a part of the record.

SACRAMENTO DEEP WATER SHIP CHANNEL DEEPENING

TESTIMONY OF JOHN SULPIZIO, ACTING DIRECTOR, PORT OF SACRAMENTO, ACCOMPANIED BY LARRY MALLON, SPECIAL COUNSEL

Mr. **Sulpizio.** Mr. Chairman and Mr. Stangeland, thank you very much.

In fact, it's a great honor to give this testimony so late in the day. It was an illuminating afternoon, albeit long, but one in which we learned a great deal.

I appreciate the opportunity to testify this afternoon on behalf of the Port of Sacramento and report, to some extent, our progress on our deep water improvement.

It's a particular pleasure because I think we bring an $8 million public problem, but I think it's encouraging news that we hope we offer a common sense, straightforward, $2 solution, and it has the hopes of saving us a considerable sum of money.

Let me elaborate. The Port of Sacramento is a multi-jurisdictional public port. With me today to testify on this matter is Larry Mallon, special counsel to our port, and formerly Counsel to the House Merchant Marine Committee and played a role in the deliberations prior to the 1986 Act.

Our port services North Sacramento Valley agriculture business and forestry and has been instrumental in the economy of our region.

We're the local sponsor for the Sacramento Deep Water Ship Channel Deepening Project authorized under the Act. It's one of four projects in California and the only one underway, which got started late last year.

This is a project that will be carried out over a five-year period and has a price tag of somewhere around $42 million and generally will add five feet of depth to our channel extending from the San Francisco Bay area into the port's harbor.

All of the regions are quite well known under previous discussion. Under the current facts of life, the port is required to contribute 25 percent of the cost of the general construction and features of the project and is 100 percent responsible for the spoil areas and the utility relocations.

Fortunately, this project, which is going into its second year of construction, does not have any environmental problems and should not encounter any delays on that count.

Today, I want to address the particular problem of responsibility for utility relocation. With the current environment, the Act requires the non-federal interest, i.e., the Port of Sacramento, and I quote, "to perform or assure the performance of all relocations or utilities necessary to carry out the project", and, of course, the section goes on with some exceptions.

In the case of our project, we have three critical utility relocations at an estimated relocation cost of approximately $8.3 million.

We're now at a point in the construction schedule that the planning, engineering and scheduling of utility relocation should commence, but to date it's been generally overshadowed by the issue of financing those necessary relocations.

These dollars, that is, the $8.3 million for the relocation of the utilities, represent approximately 40 percent of the total non-federal requirements to make this project happen.

The bottom line here is that we contend that although responsible under our Local Cooperation Agreement for the relocation of the utilities, we don't have to pay for these utility relocations and shouldn't have to pay under the current permits running from the corps to the utility company.

Thus far, the matter of utility relocations have been dealt with in a couple of other projects. In one case, it was delivered on a cost share basis prior to construction activity, and we understand now, as the Houston Ship Channel is being considered, that there are extensive relocations, but in the case of Texas, we also understand that there are state-wide permits that are quite deliberate with regard to stipulating that the utility company will move those utilities at utility company cost.

Such is not the case in California, and therein we have a degree of a problem. For those of us that don't have strong State stipulations on utility relocations, and that is the case in the Sacramento Deep Water Project, our only hope is to rely on a reservation of right in the permit running from the corps to the utility company, and essentially those reservations of right compel removal of the utility if, in fact, navigation enhancements or improvements are to be made.

Of course, there is some very compelling language in that regard. Here's the ticklish problem we face currently, and that is that we have approached this utility company and we've said, you know, you have a permit that runs from the corps, the corps is our partner, it seems logical you ought to honor your permit, and you ought to remove these utilities at your cost.

They have said, no, we don't see it that way. So we went to the corps, and we said, gentlemen, as partners in this project, it seems only logical that, in fact, you should enforce the permit clause that says the utility company shall move that utility at utility company cost.

They, unfortunately, said we're not in a policy position or we're not mandated to do that; however, if, in fact, it ultimately becomes a problem, we will step forward under our policy guidance letters and, at the 11th hour, my paraphrase, we will compel the utility companies to solve the problem.

In our opinion, that's going to be a bit too late in the process. It has the hazard of delaying the project, and it's certainly not the most cost practical approach.

What we ask you to consider, quite simply, is a modest little amendment that allows the local sponsors to access that reservation of right.

That is to say, in the matter of these utility relocations, we would hope non-sponsors, through a minor amendment, would be able to enforce that reservation of right.

In so doing, what you would alleviate entirely is the need for the Port of Sacramento and other similarly situated ports to resort to litigation that would challenge the corps and, in fact, the utility company simultaneously.

The long and short of it is we'd like to pursue this project as it started, as a partnership. However, the facts are that neither the Federal Government nor the local sponsor, also a public entity, need pay for this utility relocation, a substantial portion of the total project costs, under the current permit conditions.

I think we can strengthen our partnership on this matter if, in fact, a minor amendment is added to Section 104(a)(4) of the Water Resources Act.

The record, I think, will show as a part of our longer testimony a proposed language for that amendment. With those remarks only, I'd be happy to take some questions or refer more complex legal questions to Mr. Mallon.

Mr. NOWAK. Let me just say we have had this become an issue other places also, and I think we should look at it, as you have suggested here.

If you're a utility, it's probably more than a minor technical amendment. I would think that they would look at this as something that they would probably want to comment on, and we'll give them the opportunity.

But it looks like there should be a method that we can solve this in a timely fashion so that the State doesn't have that requirement.

We have to find a way to resolve it so we can move forward. I'm just wondering if you've had the opportunity to talk to the utility about the suggestion.

Mr. SULPIZIO. Of handling this, Mr. Chairman?

Mr. NOWAK. Yes.

Mr. SULPIZIO. Yes, we certainly have. In fact, they have said they will not, and they have taken the position that they'd be happy to begin the engineering if we would place on deposit the sum of money to begin that engineering work, and the implication is that if you want our utility moved, you're going to have to pay for it.

I would react as well that if the permit language running from the corps to the utility was not so startlingly clear, we might have some degree of debate here with regard to whether or not this utility should or should not be moved at the utility company's cost.

But the section that we refer to is very clear, and it's our opinion as local sponsors for this project that the utility company ought to step up and meet its obligation to the Federal Government under that permit.

Mr. NOWAK. Thank you very much.

Mr. SULPIZIO. Thank you.

Mr. NOWAK. Congressman Stangeland.

Mr. STANGELAND. Thank you, Mr. Chairman.

I want to get something clear. The corps gives a permit to the utility company to lay its electrical lines or gas lines in a harbor.

Mr. SULPIZIO. Gas pipelines, in this case, under a channel.

Mr. **Stangeland**. Okay. In that permit, there is something that says that if the configuration of the harbor changes, the utility is obligated to relocate its facility?

Mr. **Sulpizio**. That is correct.

Mr. **Stangeland**. Okay. Well, I agree with you. You know, I was kind of surprised when I first heard you start to talk that the improvement of the port of the harbor, the benefits no way accrue to that utility, so it would be kind of unreasonable for them to have to move.

But if the permit that they got to go in there in the first place says they shall, then I guess they ought to.

Mr. **Sulpizio**. Let me be more specific, if I may. Section 10 of that permit says:

> If future operations by the United States require an alteration in the position of the structural work or if, in the opinion of the Secretary of Army, it shall cause unreasonable obstruction to the free navigation of said water, the owner, i.e., the utility, my insert, will be required upon due notice from the Secretary of the Army to remove or alter the structural work or obstruction caused thereby without expense to the United States so as to render navigation reasonably free, easy and unobstructed.

That is a serious commitment to the United States. They went into the bargain of placing that utility knowing full well what the future might hold for them, and the time has come to meet that obligation.

Mr. **Nowak**. If the gentleman would yield, there probably would be some initial benefit given to them in terms of construction of a line through or in the waterway, if they had to take an alternative of either laying a line up above very high or going around, which would encompass, I would assume, other right-of-way costs, especially if you had to move two miles or five miles to a stationary bridge.

So there may be an offset here that, you know, isn't evident.

Mr. **Sulpizio**. We certainly acknowledge that on a national basis, there might be all kinds of alternatives, in our base, what we have is three gas lines, thereby overheads probably would be an impractical approach, and other utility needs that are probably going to crop up in the future with regard to submerged pipelines.

I think in the best interest of these projects, being able to convey the right of enforcing that section 10 of the permit clause would be a very clean way, if you will, even given specific certainties so that there be no uncertainty about its abuse, so that non-federal sponsors could move forward, enforce the clause, allow the port to stay at arms length from the transaction, so to speak, and keep the project on a proper time line.

Mr. **Stangeland**. I have no further questions. Thank you very much.

Mr. **Nowak**. Thank you for bringing this to our attention, and we'll certainly have a discussion with the corps, as well as others, on this matter.

Mr. **Sulpizio**. Thank you.

Mr. **Nowak**. Thank you again for appearing.

[Mr. Sulpizio's prepared statement follows:]

STATEMENT

OF

JOHN SULPIZIO, ACTING DIRECTOR

PORT OF SACRAMENTO

AT A HEARING ON

THE WATER RESOURCES DEVELOPMENT ACT OF 1990

BEFORE

THE SUBCOMMITTEE ON WATER RESOURCES

COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

U.S. HOUSE OF REPRESENTATIVES

WASHINGTON, D.C.

WEDNESDAY, MARCH 14, 1990

MR CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE,

I AM JOHN SULPIZIO, ACTING DIRECTOR OF THE PORT OF SACRAMENTO. I APPRECIATE THE OPPORTUNITY TO TESTIFY BEFORE THE SUBCOMMITTEE TODAY CONCERNING THE PROGRESS TO DATE IN IMPLEMENTING THOSE NEW NAVIGATION PROJECTS AUTHORIZED IN THE LONG-AWAITED WATER RESOURCES DEVELOPMENT ACT OF 1986 (PUBLIC LAW 99-662) ("WRDA 1986").

I APPEAR ON BEHALF OF THE SACRAMENTO-YOLO PORT DISTRICT ESTABLISHED BY SPECIAL ACT OF THE CALIFORNIA LEGISLATURE THROUGH ITS APPOINTED COMMISSION. I AM ACCOMPANIED BY LAWRENCE G. MALLON, A CALIFORNIA ATTORNEY AND SPECIAL

COUNSEL TO THE PORT, WHO WAS FORMERLY INVOLVED AS COUNSEL TO THE HOUSE SUBCOMMITTEE ON MERCHANT MARINE IN THE HEARINGS AND HOUSE DELIBERATION THAT PRECEDED THE ENACTMENT OF THE 1986 ACT.

THE DISTRICT IS THE LOCAL SPONSOR OF THE SACRAMENTO RIVER DEEP WATER SHIP CHANNEL NAVIGATION PROJECT AUTHORIZED UNDER THE 1986 ACT. THIS IS ONE OF FOUR NAVIGATION PROJECTS IN THE STATE OF CALIFORNIA AUTHORIZED UNDER THAT ACT AND THE ONLY ONE CURRENTLY UNDER CONSTRUCTION WHICH COMMENCED IN DECEMBER, 1988.

THE NAVIGATION PROJECT IS A FIVE YEAR $45 MILLION EFFORT INVOLVING THE DEEPENING OF THE 46.5 MILE MAN-MADE CHANNEL UPRIVER FROM SAN FRANCISCO BAY COMPLETED IN 1963 FROM THIRTY TO THIRTY-FIVE FEET IN DEPTH. TIMELY COMPLETION OF THE CURRENT PROJECT IS NECESSARY IN ORDER TO:

FIRST, SERVE OUR EXISTING CUSTOMER BASE;

SECOND, EXPAND PORT CAPACITY TO SERVE A RAPIDLY GROWING REGIONAL ECONOMY; AND

THIRD, IMPROVE CHANNEL DEPTH CAPACITY TO ACCOMMODATE SEVENTY PER CENT OF THE WORLD BULK FLEET FROM TWENTY PER CENT CURRENTLY.

UNDER THE 1986 ACT THE PORT OF SACRAMENTO IS REQUIRED TO CONTRIBUTE 25% OF THE COST OF THE GENERAL NAVIGATION FEATURES OF THE PROJECT, DREDGED MATERIAL DISPOSAL AREAS, AND IS RESPONSIBLE FOR THE TIMELY COMPLETION OF NECESSARY UTILITY RELOCATIONS. I MIGHT NOTE THAT UNLIKE SOME PORT PROJECTS, OUR PROJECT INVOLVES DISPOSAL OF DREDGED MATERIAL ON SITE AND HAS NOT BEEN DELAYED FOR ENVIRONMENTAL REASONS.

WE HAVE MET OUR FINANCIAL RESPONSIBILITY TO DATE WITH A COMBINATION OF NET RETAINED ERNINGS AND BORROWING AGAINST CAPITAL ASSETS. TO FURTHER SECURE OUR FISCAL POSITION IN THE PROJECT, WE HAVE ALSO PLEDGED PORT LAND AS COLLATERAL. CLEARLY WE WOULD NOT WANT TO LOSE THE COLLATERALIZED ASSETS WITHOUT EXHAUSTING OTHER AVAILABLE ALTERNATIVES.

IN THAT REGARD WE HAVE EXPLORED THE ESTABLISHMENT OF A NAVIGATION SPECIAL ASSESSMENT DISTRICT UNDER A 1988 REVISION TO STATE LAW PERMITTING A PORT OR HARBOR DISTRICT TO EMPLOY SUCH A MECHANISM TO ASSESS A LEVY AGAINST REAL PROPERTY LOCATED IN SUCH A DISTRICT FOR BENEFITS RECEIVED FROM NAVIGATION IMPROVEMENTS.

HOWEVER, IT IS WITH RESPECT TO THE UTILITY RELOCATION RESPONSIBILITY THAT I APPEAR BEFORE YOU TODAY.

SECTION 101(a)(4) OF THE 1986 ACT REQUIRES A NON-FEDERAL INTEREST TO --AND I QUOTE-- PERFORM OR ASSURE THE PERFORMANCE OF ALL RELOCATIONS OF UTILITIES NECESSARY TO CARRY OUT THE PROJECT, EXCEPT THAT IN THE CASE OF A DEEP-DRAFT HARBOR AND IN THE CASE OF A PROJECT CONSTRUCTED BY

NON-FEDERAL INTERESTS UNDER SECTION 204, ONE HALF OF THE COST SHALL BE BORNE BY THE OWNER OF THE FACILITY BEING RELOCATED AND ONE HALF OF THE COST OF EACH SUCH RELOCATION SHALL BE BORNE BY THE NON-FEDERAL INTERESTS.

THE HOUSE-SENATE CONFERENCE REPORT ON THE LEGISLATION AT PAGE 205 GOES ON TO STATE THAT EXCEPT AS PROVIDED IN SECTION 204, THIS SECTION IS NOT INTENDED TO PLACE ANY NEW OBLIGATION ON NON-FEDERAL INTERESTS TO PAY FOR RELOCATIONS NECESSITATED BY COMMERCIAL CHANNEL OR HARBOR DEVELOPMENT INVOLVING DEPTHS OF FORTY-FIVE FEET OR LESS. THE CONFERENCE REPORT MAKES FURTHER PERMISSIVE REFERENCE IN STATING IF THE NON-FEDERAL INTEREST HAS THE AUTHORITY TO COMPEL THE OWNER OF THE FACILITY TO PAY RELOCATION COSTS, IT MAY DO SO.

THE SACRAMENTO RIVER PROJECT INVOLVES SEVERAL PUBLIC AND PRIVATE UTILITY RELOCATIONS AT A CURRENTLY ESTIMATED RELOCATION COST OF APPROXIMATELY EIGHT MILLION DOLLARS. WE ARE NOW AT A POINT IN THE CONSTRUCTION SCHEDULE THAT THE PLANNING, ENGINEERING, AND SCHEDULING OF UTILITY RELOCATIONS SHOULD COMMENCE BUT TO DATE THIS HAS BEEN DELAYED AND OVERSHADOWED BY THE ISSUE OF FINANCING THE NECESSARY RELOCATIONS.

THE ISSUE HAS BEEN RESOLVED THUS FAR IN THE CONTEXT OF THE ONLY PROJECT WHERE IT HAS ARISEN IN THE LOWER MISSISSIPPI RIVER IN A DEEP-DRAFT PROJECT ON A COST-SHARED BASIS AS

REQUIRED AND THEN IN ADVANCE OF PHASED CONSTRUCTION OF THE CHANNEL IMPROVEMENTS. I AM ADVISED THAT THE HOUSTON SHIP CHANNEL NAVIGATION PROJECT PROPOSED FOR AUTHORIZATION INVOLVES SIMILAR EXTENSIVE UTILITY RELOCATIONS. HOWEVER, MANY OF THOSE REQUIRED RELOCATIONS ARE SUBJECT TO STATE PERMIT CONDITIONS REQUIRING RELOCATION AT UTILITY EXPENSE.

FOR THE BULK OF OTHER FEDERAL PROJECTS --PARTICULARLY THOSE UNDER FORTY-FIVE FEET IN DEPTH--OUR RESEARCH REVEALS THERE IS ONLY ONE METHOD OF ENFORCING UTILITY RELOCATIONS NECESSITATED BY AUTHORIZED FEDERAL NAVIGATION PROJECTS. THIS IS THROUGH THE ENFORCEMENT OF WHAT ARE CALLED RESERVATIONS OF THE RIGHT TO COMPEL REMOVAL OR RELOCATION OF UTILITIES INCORPORATED AS PERMIT CONDITIONS CONTAINED IN PERMITS ISSUED BY THE CORPS OF ENGINEERS UNDER SECTION 10 RIVERS AND HARBORS ACT OF 1899 AT THE TIME OF DREDGING AND INSTALLATION OF THE UTILITY CROSSING. THIS RESERVATION IS THE EMBODIMENT OF THE PARAMOUNT FEDERAL NAVIGATIONAL SERVITUDE UNDER THE COMMERCE CLAUSE OF THE U.S. CONSTITUTION. IN FACT FEDERAL COURTS HAVE CONSISTENTLY HELD THAT FAILURE TO EXPRESSLY RESERVE THIS AUTHORITY CONSTITUTES A WAIVER OF THE NAVIGATIONAL SERVITUDE.

IN CALIFORNIA PUBLIC UTILITIES HAVE LONG SINCE NEGOTIATED STATEWIDE PERMITS WITH THE STATE LANDS COMMISSION WHICH ISSUES PERMITS UNDER ITS AUTHORITY OVER SUBMERGED LANDS THAT PURPORT TO EMBODY CONDITIONS INCLUDED IN CONCURRENT FEDERAL

PERMITS. HOWEVER, ENFORCEMENT OF CONCURRENT STATE PERMIT CONDITIONS MUST NECESSARILY DEFER TO A CLASSIC APPLICATION OF THE DOCTRINE OF FEDERAL PREEMPTION.

WE HAVE CONFIRMED THAT FOR EACH UTILITY RELOCATION REQUIRED BY PROJECT CONSTRUCTION A SECTION 10 (33 U.S.C. 403) PERMIT ISSUED FOR UTILITY CROSSINGS OF NAVIGABLE WATERS INCORPORATES AS AN EXPRESS CONDITION AND I QUOTE AGAIN--IF FUTURE OPERATIONS BY THE UNITED STATES REQUIRE AN ALTERATION IN THE POSITION OF THE STRUCTURE OR WORK.. OR IF IN THE OPINION OF THE SECRETARY OF THE ARMY, IT SHALL CAUSE UNREASONABLE OBSTRUCTION TO THE FREE NAVIGATION OF SAID (SIC) WATER, THE OWNER WILL BE REQUIRED UPON DUE NOTICE FROM THE SECRETARY OF THE ARMY, TO REMOVE OR ALTER THE STRUCTURAL WORK OR OBSTRUCTION CAUSED THEREBY WITHOUT EXPENSE TO THE UNITED STATES SO AS TO RENDER NAVIGATION REASONABLY FREE, EASY AND UNOBSTRUCTED;...

NOW HERE'S WHERE IT GETS TICKLISH. THE APPROPRIATE WAY TO ENFORCE THE RESERVATION IS IN THE FORM OF A SUIT AGAINST THE CORPS OF ENGINEERS UNDER 28 U.S.C. 1361, THE FEDERAL MANDAMUS STATUTE, TO COMPEL THE CORPS TO ENFORCE THEIR OWN PERMIT CONDITION. IN ADDITION, A SUIT TO ABATE AN OBSTRUCTION TO NAVIGATION UNDER SECTION 10 AND SEEKING AFFIRMATIVE MANDATORY RELIEF IN THE FORM OF AN INJUNCTION UNDER SECTION 12 (33 U.S.C. 406) MAY BE BROUGHT AGAINST THE UTILITY OWNER TO REMOVE OR ALTER THE UTILITY.

IT APPEARS THAT THE PROJECT SPONSOR HAS STANDING TO BRING SUCH AN ACTION AS ONE LIKELY TO SUFFER ACTUAL INJURY TO NAVIGATION FROM THE OBSTRUCTION. IT ALSO APPEARS THAT UNLIKE OTHER SUITS FOR EQUITABLE RELIEF NO IRREPARABLE INJURY OR INADEQUATE REMEDY AT LAW MUST BE PROVEN IN ORDER FOR AN INJUNCTION TO ISSUE. FINALLY, AS AN ALTERNATIVE TO INJUNCTION A FEDERAL COURT MAY AWARD DAMAGES IN THE AMOUNT OF THE REMOVAL COSTS TO THE SPONSOR.

WE AT THE PORT, AS PARTNERS RATHER THAN ADVERSARIES IN THE CONSTRUCTION OF THIS AUTHORIZED NAVIGATION PROJECT, PREFER TO SETTLE OUR DIFFERENCES THROUGH ALTERNATIVE DISPUTE MECHANISMS SUCH AS THOSE MANDATED UNDER THE LOCAL COOPERATION AGREEMENT FOR THE PROJECT.

THE CORPS HAS RECOGNIZED AND TO SOME EXTENT HAS ANTICIPATED THIS PROBLEM BY PROVIDING IN A SERIES OF GUIDANCE LETTERS TO DISTRICT OFFICES AS FOLLOWS:

IN THOSE CASES WHERE THE LOCAL SPONSOR HAS, DESPITE EVERY REASONABLE EFFORT FAILED TO REACH AGREEMENT WITH AFFECTED UTILITY OWNERS REGARDING RELOCATIONS OR REMOVALS, AND FURTHER, LACKS THE AUTHORITY TO FORCE SUCH ACTIONS, THE FEDERAL GOVERNMENT MAY ELECT TO EXERCISE FEDERAL AUTHORITIES TO COMPEL THE RELOCATION OR REMOVAL, SUCH EXERCISE OF FEDERAL POWER SHALL NOT RELIEVE THE LOCAL SPONSOR OF ITS

STATUTORY RESPONSIBILITY TO ASSURE THE RELOCATIONS OR THE ACQUISITION OF LANDS AND ITEMS TO BE REMOVED, AT NO EXPENSE TO THE FEDERAL GOVERNMENT.

CONSEQUENTLY, ANY FEDERAL EXPENSE INCURRED IN COMPELLING THE RELOCATION OR ACQUISITION WILL BE BORNE ENTIRELY BY THE LOCAL SPONSOR INCLUDING ADMINISTRATIVE AND LITIGATION EXPENSES. FEDERAL FUNDS WILL NOT BE MADE AVAILABLE TO CONDUCT THE ACTUAL RELOCATION OR ACQUISITION. MOREOVER, ANY FEDERAL ACTION SHALL IN NO WAY DETERMINE THE ULTIMATE APPORTIONMENT OF THE RELOCATION OR ACQUISITION COSTS BETWEEN THE OWNER(S) AND THE LOCAL SPONSOR.

HOWEVER, THE GUIDANCE LETTER FURTHER PROVIDES:

CONTINUED CONSTRUCTION ON A NAVIGATION PROJECT SHOULD NOT BE COMPROMISED BY THE REFUSAL OF THE OWNER(S) OF ITEMS OR FACILITIES LOCATED WITHIN THE NAVIGATIONAL SERVITUDE TOP REMOVE OR PAY THE COST OF REMOVAL OF SUCH ITEMS. AS A LAST RESORT, THE FORCED REMOVAL OF ANY ITEM WITHIN THE BOUNDS OF THE NAVIGATIONAL SERVITUDE MAY PROCEED USING FUNDS MADE AVAILABLE JOINTLY BY THE FEDERAL GOVERNMENT AND THE LOCAL SPONSOR, IN PROPORTION TO THE COST SHARING APPROPRIATE FOR THE PROJECT. THE DISTRICT COUNSEL SHOULD EXPLORE AND DEVELOP ALL AVAILABLE MEANS FOR RECOUPING ANY SUCH EXPENDITURES FOR REMOVALS FROM THE APPROPRIATE OWNERS, INCLUDING ANY NECESSARY COORDINATION WITH THE LOCAL UNITED STATES

ATTORNEY. SUCH COSTS SHOULD INCLUDE ALL NECESSARY ADMINISTRATIVE AND LITIGATION EXPENSES. UPON RECOVERY THE LOCAL SPONSOR SHALL BE REIMBURSED FOR ITS SHARE.

IN OUR JUDGMENT IF THE CORPS IS PREPARED AS IT INDICATES TO EXERCISE ITS AUTHORITY TO ENFORCE UTILITY RELOCATIONS AS A LAST RESORT, THEN WE SUBMIT THERE IS A SIMPLE EXPEDIENT THAT WILL SAVE TIME, LITIGATION EXPENSE, AND AVOID PROJECT DELAY AND RESULTING PROJECT CONSTRUCTION COST INCREASE -- ALLOW US TO ENFORCE THE CORPS PERMIT CONDITION IN THE FIRST INSTANCE WITHOUT HAVING TO SUE THE CORPS TO ACCOMPLISH THE SAME RESULT.

AS THE FIRST PORT WITH A GENERAL CARGO HARBOR PROJECT TO CONFRONT THIS PROBLEM SINCE ENACTMENT IF THE 1986 ACT, WE HAVE COME UP WITH WHAT WE BELIEVE IS A SIMPLE, STRAIGHTFORWARD SOLUTION DESIGNED TO FACILITATE NEGOTIATION BETWEEN THE LOCAL SPONSOR AND THE UTILITY OWNER WITHOUT RESORT, HOPEFULLY, TO LITIGATION, OR IN THE WORST CASE NOT INVOLVING THE CORPS OF ENGINEERS IN THE LITIGATION AS A NECESSARY ADVERSE PARTY AT THE EXPENSE OF THE LOCAL SPONSOR.

WE PROPOSE THE ADOPTION OF A SIMPLE PROCEDURAL AMENDMENT TO THE RELEVANT SECTION OF THE 1986 ACT INCORPORATED BY REFERENCE AS EXHIBIT "A" TO MY STATEMENT-- THAT CODIFIES THE AUTHORITY OF A LOCAL SPONSOR TO INVOKE AND ENFORCE EXISTING SECTION 10 PERMIT CONDITIONS LIMITED TO

AUTHORIZED PROJECTS IN WHAT IS COMMONLY REFERRED TO AS A PRIVATE RIGHT OF ACTION. THIS IN NO WAY AFFECTS THE UNDERLYING COST SHARING POLICY SET FORTH IN THE 1986 ACT. NOR DOES IT COMPROMISE IN ANY WAY THE CONCURRENT AUTHORITY OF THE CORPS TO ENFORCE THE SAME PERMIT CONDITIONS FOR THE SAME PURPOSE OR AS THE NEED ARISES. IT DOES AVOID THE NECESSITY OF BRINGING IN THE CORPS AS A NECESSARY PARTY DEFENDANT TO ENFORCE THE SAME PERMIT CONDITIONS. MOREOVER, IT IS CONSISTENT WITH THE POLICY CODIFIED IN THE 1986 ACT OF SHIFTING THE RESPONSIBILITY TO THE LOCAL SPONSOR RATHER THAN THE CORPS FOR ASSURING THE NECESSARY PROJECT-RELATED UTILITY RELOCATIONS.

I AM PLEASED THE THE AMERICAN ASSOCIATION OF PORT AUTHORITIES (AAPA) SUPPORTS OUR OBJECTIVE IN ITS TESTIMONY BEFORE BOTH THE HOUSE AND SENATE AUTHORIZING COMMITTEES EARLIER THIS MONTH.

I WILL CONCLUDE MY PREPARED STATEMENT AT THIS TIME, EXCEPT TO STATE THAT THE PORT OF SACRAMENTO IS GRATEFUL TO THE MEMBERS OF THE COMMITTEE AND SUBCOMMITTEE FOR THEIR CONTINUING INTEREST IN THE SUCCESSFUL COMPLETION OF THE SACRAMENTO RIVER NAVIGATION PROJECT AND LOOKS FORWARD TO WORKING WITH YOU TO MAKE EFFECTIVE THE REFORMS INCORPORATED IN THE 1986 ACT, AND TO RESOLVE THIS PROCEDURAL ISSUE OF GREAT IMPORTANCE TO US AND TO OTHER PORTS SIMILARLY

SITUATED. I AM PREPARED TO RESPOND TO ANY QUESTIONS YOU MAY HAVE OR TO SUPPLEMENT FOR THE RECORD AS THE CASE MAY BE.

THANK YOU

PROPOSED AMENDMENT TO SECTION 101(a)(4) of WRDA 1986

Section 104(a)(4) of the Water Resources Development Act of 1986 (33 U.S.C. 2211) is amended by adding at the end thereof the following:

" For this purpose a non-Federal interest may enforce the reservation of the navigational servitude contained as a condition of any permit issued to a utility by the Secretary of the Army under Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403)."

Mr. NOWAK. The subcommittee, unless anybody else would like to testify, stands adjourned. Thank you.

[Whereupon, at 6:10 p.m., the subcommittee was adjourned, to reconvene at the call of the Chair.]

PROPOSED AUTHORIZATIONS FOR THE WATER RESOURCES DEVELOPMENT PROGRAM OF THE U.S. ARMY CORPS OF ENGINEERS

TUESDAY, APRIL 24, 1990

House of Representatives,
Subcommittee on Water Resources,
Committee on Public Works and Transportation,
Washington, DC.

The subcommittee met, pursuant to notice, at 10:12 a.m. in room 2167, Rayburn House Office Building, Hon. Henry J. Nowak (chairman of the subcommittee) presiding.

Mr. **Nowak**. Good morning. The subcommittee will come to order.

This morning the Subcommittee on Water Resources meets to continue to receive testimony concerning proposed project authorizations for the Civil Works Program of the U.S. Army Corps of Engineers.

This will be our final hearing in the subcommittee's efforts of developing a biennial authorization bill for the Water Resources Development program of the Corps of Engineers. At today's hearing we will receive testimony from Members of Congress, the Administration, and individuals.

The Administration witness will present the Administration's legislative proposal for the Corps' program. While individual members of the subcommittee may not agree with each element of the proposal, we are interested in reviewing the proposal, understanding each others positions, and developing a mutually acceptable bill. It is the intention of the subcommittee to develop a Water Resources Development Act for 1990 and to have it enacted into law later this year.

Before we begin the testimony, I yield to my distinguished colleague from Minnesota, the ranking Republican Member of the subcommittee, John Paul Hammerschmidt, for whatever opening remarks he wishes to make.

Mr. **Hammerschmidt**. Thank you very much, Mr. Chairman. I am sure that our ranking member of the subcommittee will be here in a few minutes—he has been detained. But I think in the interest of our witnesses time, and yours, we need to go ahead.

I want to thank you for holding these hearings, which have been of invaluable assistance in developing an authorization bill for this Congress. Today we will hear from witnesses who have not had the opportunity to testify before the subcommittee.

We will also hear again from the Administration, through the testimony of Dr. G. Edward Dickey, Acting Deputy Assistant Secretary of the Army for Civil Works, concerning their legislative proposals. I want to welcome all of the witnesses to today's hearing, and assure them that their views will be carefully considered.

Thank you very much, Mr. Chairman.

Mr. NOWAK. Thank you.

We will move right to our witnesses. The first witness we have scheduled is the Honorable Bill Richardson from New Mexico. Congressman, if you will take the chair, you may proceed as you desire.

IRRIGATION SYSTEMS IN NEW MEXICO

TESTIMONY OF HON. BILL RICHARDSON, A U.S. REPRESENTATIVE FROM THE STATE OF NEW MEXICO

Mr. RICHARDSON. Thank you, Mr. Chairman. I look forward to the opportunity to testify. I will be very brief. I would like to ask unanimous consent to submit my entire written statement to the hearing proceedings.

Mr. NOWAK. Without objection, so ordered.

Mr. RICHARDSON. Thank you. Mr. Chairman, I have three requests that I hope this subcommittee will consider as you proceed with your markup. I know funds are tight and you have to prioritize. Let me just briefly mention what they are.

In the past, Mr. Chairman, you and members of the subcommittee have been strong supporters of the Acequias Irrigation System in northern New Mexico. These are irrigation ditches that were created in the 1600s by Hispanic farmers in the State of New Mexico. What has happened with these acequias or irrigation ditches is that substantial damage has occurred to them. There is already a $40 million program authorized under the Water Resources Development Act of 1986. That was greatly appreciated.

But Mr. Chairman, there are many more acequias that have not been rebuilt. This is a strong project that the Corps of Engineers has worked on and done a very good job on. I am requesting additional funds for the construction of an additional acequias project.

Mr. Chairman, the second request relates to a community in my district, Belen, New Mexico, suffering chronic flooding problems originating in the watershed of mesas west of Belen. A major canal, the Belen Highline Canal, is located immediately adjacent to Belen and poses a serious threat to life and property should flood waters breach the canal. The New Mexico congressional delegation has initiated legislation in the other body to request an additional $19 million for this project. It is proceeding in the other body, and I hope that this subcommittee considers this project also.

Finally, we are talking about a project that had been authorized in the past, called the Middle Rio Grande Flood Protection Project, which extends from the towns of Bernalillio to Belen. We are talking about an authorization of $44.9 million for five levees that was authorized in 1981. Regrettably, because of inflation and other reasons, the cost obviously is going to increase.

I know you have many priorities, and that the subcommittee is going to be scrutinizing many of these proposals. I apologize for not having come sooner to testify, but I will be supporting full supporting documents for these projects.

Again, I appreciate the opportunity to testify before your subcommittee.

Mr. NOWAK. Thank you very much. I want to assure you that you are not untimely. We will give full review to all your projects as we go through our total request list. In looking at the comments, we will probably have some questions as we put together our final package.

Once we do that, we will take the opportunity to get back to you and discuss these in more detail so that we can move forward expeditiously. You bring some very important problems forth, not only to your district in New Mexico, but to New Mexico as a whole, and we want to give full consideration to them.

Congressman Hammerschmidt?

Mr. HAMMERSCHMIDT. I want to thank our good friend and colleague for bringing us his testimony. I think he knows that this subcommittee is very sensitive to our colleagues and their district's needs, and we rely heavily on the Corps of Engineers for their advice. We will certainly take it all into consideration and we thank you for your good testimony.

Mr. RICHARDSON. Thank you, and thank you, Mr. Chairman.

[Mr. Richardson's prepared statement follows:]

STATEMENT OF CONGRESSMAN BILL RICHARDSON

Mr. Chairman thank you for this opportunity to testify before your committee with respect to several projects important to the Congressional district I represent in New Mexico.

Mr. Chairman you have been a strong supporter of the acequia irrigation system and your help in authorizing $40 million for this project during consideration of the Water Resources Development Act of 1986 is greatly appreciated. At that time Congress found that these irrigation ditch systems, which date from the eighteenth century and were significant in the settlement and development of the West, continue to play a vital role in the local economy. Congress also declared that the restoration and preservation of the acequias has cultural and historic values to the region. The renovation of the canals and small diversion dams making up the acequias system is essential to continue delivery of water that many small communities depend on for their economic livelihood.

According to the Army Corps of Engineers, the current funding level authorized for the acequias irrigation system will permit construction of an estimated 270 projects. The design and construction phase is underway for several of these projects. There are, however, over 1,000 acequia associations and many of these are also in need of repair. I respectfully request your assistance in authorizing an additional $20 million for the acequia irrigation system. The Army Corps of Engineers estimates this funding level will allow for the reconstruction of an additional 100 acequia projects.

The historic community of Belen, New Mexico, suffers chronic flooding problems originating in the watershed and mesas west of Belen. A major canal, the Belen Highline Canal, is located immediately adjacent to Belen and poses a serious threat to life and property should flood waters breach the canal. In order to protect the city and its residents I respecfully request your assistance in authorizing a total of $19,576,000, with an estimated federal cost of $12,130,000, and an estimated non-federal cost of $7,446,000, to undertake flood control measures.

Finally, I respectfully request your assistance in authorizing a total of $71,700,000 for the Middle Rio Grande Flood Protection Project that extends from Bernalillio to Belen. This project was previously authorized in the Water Resources Act of 1986 but the projected cost of $44.9 million for five levee units based upon a 1981 Chief's Report did not include the value of project lands because they are owned by the project sponsor.

Thank you for this opportunity to testify before your committee. Your assistance in these matters is greatly appreciated.

Mr. **Nowak**. I understand Congresswoman Long requested to go out of order, so we will not proceed with the U.S. Corps of Engineers testimony. Dr. G. Edward Dickey is here, the Acting Principal Deputy Assistant Secretary of the Army for Civil Works.

Mr. **Hammerschmidt**. Mr. Chairman, before Dr. Dickey testifies, I would like to ask that our subcommittee member, Mr. Stangeland, be allowed to put his statement into the record.

Mr. **Nowak**. Without objection, so ordered.

[Mr. Stangeland's prepared statement follows:]

STATEMENT OF HONORABLE ARLAN STANGELAND
HEARING ON
PROPOSED WATER RESOURCES DEVELOPMENT ACT
WATER RESOURCES SUBCOMMITTEE
APRIL 24, 1990

THANK YOU, MR. CHAIRMAN. TODAY, THE SUBCOMMITTEE CONTINUES ITS SERIES OF HEARINGS ON CORPS' PROJECTS AND PROGRAMS -- A STEP WHICH WE HOPE WILL LEAD TO ENACTMENT OF A WATER RESOURCES DEVELOPMENT ACT OF 1990.

OVER THE LAST FEW MONTHS, OUR SUBCOMMITTEE HAS RECEIVED TESTIMONY ON A WIDE RANGE OF PROPOSED PROJECTS AND PROGRAMMATIC INITIATIVES. THIS IS ALL PART OF OUR EFFORT TO KEEP THE CORPS' WATER PROGRAM ON A TWO-YEAR TRACK. BY DOING SO, WE HELP ENSURE THE CONTINUED CREDIBILITY AND SUCCESS OF THE NATION'S LARGEST WATER RESOURCES DEVELOPMENT PROGRAM.

TODAY'S HEARING KEEPS US GOING IN THAT POSITIVE DIRECTION. SPECIFICALLY, WE WILL RECEIVE TESTIMONY FROM THE ASSISTANT SECRETARY'S OFFICE REGARDING THEIR 1990 LEGISLATIVE PROPOSAL. SOME OF THEIR PROPOSALS ARE NOT NEW AND SOME, PARTICULARLY THEIR RECREATION USER FEE INITIATIVE, ARE NOT GOING TO RECEIVE SUPPORT FROM EVERYONE. I ALSO HAVE SOME CONCERN ABOUT THEIR COST-SHARING PROPOSALS FOR SECTION 22 PLANNING ASSISTANCE TO STATES AND SECTION 206 FLOOD PLAIN MANAGEMENT SERVICES. OTHER WITNESSES WILL HIGHLIGHT THESE SAME CONCERNS.

THE CORPS AND OTHER WITNESSES WILL DESCRIBE SOME ADDITIONAL PROJECTS THAT HAVE RECENTLY RECEIVED SECRETARIAL APPROVAL AS WELL AS PROGRAMMATIC ISSUES TO BE ADDRESSED IN A 1990 OMNIBUS BILL. THESE PROPOSALS ADDRESS, AMONG OTHER THINGS, COST-SHARING, ENVIRONMENTAL, RESEARCH AND DEVELOPMENT, AND INFRASTRUCTURE MEASURES.

MR. CHAIRMAN, TODAY'S TESTIMONY WILL BE PARTICULARLY VALUABLE. I LOOK FORWARD TO REVIEWING IT AND CONTINUING TO WORK WITH YOU IN DEVELOPING A 1990 OMNIBUS WATER RESOURCES BILL.

Mr. NOWAK. Dr. Dickey.

ARMY CORPS OF ENGINEER PROJECTS

TESTIMONY OF DR. G. EDWARD DICKEY, ACTING PRINCIPAL DEPUTY ASSISTANT SECRETARY OF THE ARMY FOR CIVIL WORKS

Dr. DICKEY. If it is agreeable to you, Mr. Chairman, I ask that my entire statement be entered into the record, and I will summarize it.

Mr. NOWAK. Without objection, so ordered.

Dr. DICKEY. It is a pleasure for me to be here, Mr. Chairman, to have this second opportunity to present the views of the Department of the Army regarding an acceptable Water Resources Development Act of 1990. My testimony specifically follows that of Assistant Secretary Page on March 1.

When the Assistant Secretary testified, we had not yet submitted our legislative proposal and, thus, were unable to discuss with you the specifics of it. Since we did submit our proposal on March 16, the principal objective of my testimony is to summarize it for you.

Our legislative proposal can be divided into two parts, those initiatives which are necessary to implement the President's fiscal year 1991 budget, or those which, if not specifically necessary, indeed underlie or complement the fiscal year 1991 budget request.

The major item that falls into the former category is the increase in the ad valorem harbor maintenance fee from .04 percent to .125 percent. This ad valorem fee, which is paid on the basis of value of goods moved through our U.S. ports, would enable us to finance 100 percent of the cost of maintaining our commercial harbors. In addition, it would provide 100 percent of the cost for certain navigation charting and safety activities of the National Oceanic and Atmospheric Administration.

This increase in the ad valorem fee would generate for the Civil Works program $485 million in 1991. This would represent an increase of $293 million over the current levels which finance approximately 40 percent of the costs of maintaining our harbors.

Complementing this important increase in the harbor maintenance fee would be the modification of the trust fund to essentially allow us to use the proceeds of the fee to finance our activities and creation of a new trust fund to cover NOAA activities.

The second major item that underlies the President's budget is the expansion of our recreation user fee authority. This proposal would allow the Department of the Army to join other Federal agencies and states in charging fees for specialized recreation activities, such as camping, swimming, and boat launching at our projects.

This proposal would generate an additional $20 million in fiscal year 1991. This should be compared to our receipts under our current recreation user fees which are on the order of $16 million or $17 million. Thus, our proposal would more than double the projected user fee collections for recreation activities.

Other beneficiary-pay extensions included in our legislative proposal include cost sharing of the Planning Assistance to States Program. This proposal would allow the Secretary of the Army to recover about 50 percent of the costs of providing planning assistance under Section 22 of the Water Resources Development Act of 1974. This proposal would allow us to keep our current level of activity, however, reducing the amount of Federal funds required to support this program.

We believe this is an important activity of the Corps of Engineers and that the benefitting states should contribute in part to funding that activity. We would propose a phase-in of the cost sharing to allow the states to respond to this new requirement.

Another proposal would recover 50 percent of the costs of our flood plain management services provided under Section 206 of the Flood Control Act of 1960. This cost sharing also would be phased in and would consist of a series of charges to the benficiaries and other mechanisms to help finance this service.

Another item underlying the President's budget is the extension of the authority of Section 1135 of the Water Resources Development Act of 1986. This authority, you may recall, authorizes the Secretary of the Army to carry out a variety of environmental improvements through the modification of our structures or their operation in the interest of contributing to environmental improvement.

Frankly, we were slow to respond to this authority. We have enthusiastically embraced it, however, and are developing a number of potential projects to be funded under this authority. We believe, given its experimental nature and the need for sponsors to come up with their respective shares, that we need to extend this authority for this for a full ten years.

The final thing I want to mention in terms of supporting the President's budget request is the magnetic levitation proposal. It would give the corps authority to continue to participate with the Department of Transportation, the Department of Energy and other Federal agencies in the development and implementation of a pilot program for an advanced MAGLEV system. The goal of this initiative is to stimulate the private sector development of a MAGLEV transportation system within the United States. The corps' role in accomplishing this goal would be to apply its engineering and management expertise to a fast track program designed to stimulate U.S. Research and Development efforts and to establish United States leadership in MAGLEV technologies and associated sciences and industries.

Those items represent collectively the items necessary to implement the President's 1991 budget proposal. In addition to these items, we have ten other categories of proposals which would extend the corps authority. First and foremost, of course, among those proposals is the authorization of additional projects. The proposal as we have submitted it includes four new projects that have been through the full review process. One of those, we understand—Mill Creek, Tennessee—is no longer supported by the sponsor. Since submission of our proposal on March 16, we have added four projects to the list of projects which have been through the full review process and enjoy the full support of the Administration for authorization.

In addition to these project authorizations, we have some other proposals which would broaden the corps' abilities to support public entities in the planning and construction of various public works. We also propose extending the corps authority to assist private entities as well.

There were a number of other items which I will not go into, but they are outlined in the statement. I want to close simply by saying that we have worked hard to put together a set of proposals which will continue the advance of the Army Civil Works Program and yet are cognizant of existing budgetary constraints. We believe that the two-year authorization cycle is a necessary part of an effective and orderly development program which we are doing our best to implement through our life cycle project management system.

We look forward to working with the subcommittee to put together a package of legislative proposals that are acceptable to both the Congress and the Administration, just as we did in 1986 and 1988. With that, I would like to close, and I am happy to answer any of your questions.

Mr. NOWAK. Thank you very much. We appreciate your detailed testimony that you have submitted, and would like to touch upon a couple of points.

Regarding the administration of the harbor maintenance trust fund—you call for an increase in that fee, and I wonder if you would take a minute to explain why that legislation is needed at this point. There has been a change related to the customs merchandising processing fee, which was questioned by the GATT negotiations, and it is my understanding that would be revenue that you will need to continue your regular dredging. Is that correct?

Dr. DICKEY. Yes, Mr. Chairman. I frankly am not familiar with the customs processing fee, other than to note that it was an issue raised with the GATT. There has been no such issue raised in connection with our ad valorem fee; at least I am not aware of any.

[Dr. Dickey submitted the following:]

However, I should note that our proposed legislation would avoid a GATT issue by taking up to $5 million to administer the Funds directly from the Harbor Maintenance Trust Fund. This $5 million was included in the proposed increase in the fee.

Dr. DICKEY. The ad valorem fee, you may recall, came out of the 1986 Act as essentially a proposal from Congress to generate funds to finance our commercial dredging activities. It, frankly, has a minimal impact on the relative positions of the harbors in terms of their competitiveness. Because it is an ad valorem fee, based on the value of the goods transported, it does not significantly affect decisions as to what harbor one might use in the United States, so it does not noticeably disturb the competitive equilibrium.

Yet, it generates money which can be used to maintain our harbors. When you put the harbors on a beneficiary pay basis, of course, we don't have to worry about budgetary exigencies and changes in priorities related to our ability to maintain those harbors. We think extension of the beneficiary pay principal here can provide a secure basis for funding this important activity. Moreover, a fee increase should have very little impact on the volume or distribution of international commerce.

Mr. NOWAK. The other fee that one of the other new initiatives considers—the recreation user fee that we have looked at in the past—the enactment of that fee to be imposed is termed on page five as "reasonable charges for use of certain developments." Can you give us some enlightenment of what a "reasonable charge" is? Is this going to be the charge that others are providing the same service for, or is it related to the operation of the activity by the corps itself?

Dr. DICKEY. I am happy to respond to that. In fact, it is an interesting question, and one to which we have devoted considerable attention to. The way that these fees are set is based on the particular service that is provided but several other factors are considered. What we typically do is review what other public and private entities are charging for that service and in the locality where the service is provided.

Frankly, you find a considerable range in the costs of camping depending upon the attractiveness of the location and what other folks are charging in the area, both private and public and other factors. Typically, our fees are less than fees for private areas which frequently have more amenities than ours. Our fees are more smaller comparable to State fee structures and to fees charged in other public parks.

There is a cooperative effort here to put together something which essentially provides for a harmonious relationship among the various parties. Indeed, some of the most severe critics of our current free facilities are commercial concerns who find us in competition with them.

Mr. NOWAK. Let me turn to our minority leader.

Mr. STANGELAND. Thank you, Mr. Chairman.

Welcome, Dr. Dickey.

First of all, the Administration is proposing cost sharing for the Flood Plain Management Services Program and the Planning Assistance to States Program. There are several examples throughout the Federal Government where assistance to states—specifically technical assistance—is given without cost sharing arrangement. Why are these programs being singled out?

Dr. DICKEY. There are two problems. One has to do with the notion that we are in a time of shrinking budgets. Cost sharing provides a way of enabling this service to be continued at present levels while reducing the burden on the Federal budget. That is kind of an expediency argument.

But beyond that, I think there is a very good case to be made that when you look to people who receive the service, whether it be the flood plain information that we provide or the planning assistance to states. When the recipient of those services is expected to contribute something, you get a more responsive product, and you have a higher assurance that the Federal money is being well spent. That point is very important in underlining why we want these fees.

Mr. STANGELAND. I was just wondering why these are a lower or lesser priority for assistance than some other programs. I think in order to get to the bottom of that we have to look to see what other programs receive full cost Federal assistance for technical assistance and then try to prioritize. We don't see a need that these should be singled out unless there is something unique about the others, that they continue to deserve full Federal cost.

In your proposal, and throughout general corps policy, the importance of meeting public policy objectives through construction has been stressed. By implementing cost sharing requirements for the above programs, you are probably eliminating some projects due to lack of local funding. Are you not then defeating some important public policy objectives that the corps has consistently emphasized?

Dr. **Dickey**. I would say that the premise underlying our cost sharing principles is that our projects are economically sound and produce real benefits that flow to those who are lucky enough to receive the corps project. In addition, our cost sharing requirements take into account the nature of the service provided. For example, we have a different cost sharing policy for water supply as opposed to flood control. Depending on the nature of the service, we can expect different contributions from the beneficiary.

We combine the best of both worlds in the sense of providing Federal subsidy where it is appropriate, and in other areas looking to the beneficiaries to pay the full cost. It is pretty hard to argue that the cost sharing formulas in the 1986 Act or those whose extensions that we are proposing are going to inhibit sound projects.

Mr. **Stangeland**. One last question. Today you mentioned, and on March 1 as well, two proposed programs involving several agencies in which you hope to take the lead—an interagency infrastructure council and the development of the MAGLEV system. Can you explain why you feel the corps should be the lead agency in these areas, and how you foresee the interagency rivalry being eliminated in these programs?

Dr. **Dickey**. The infrastructure proposal is not included in our legislative package. It was dropped at the last minute. Some of the problems that you raised are ones that troubled others.

Mr. **Stangeland**. Thank you, Dr. Dickey. We look forward to working with you, particularly as we move to the markup of our Water Resources bill. We hope to have another two-year authorization, and get it on track quickly.

Dr. **Dickey**. Thank you.

Mr. **Nowak**. Congressman Ballenger from North Carolina.

Mr. **Ballenger**. Thank you, Mr. Chairman. I am a comparatively new Congressman—but I was in the State Legislature and the State Senate in North Carolina for quite some time. Everyone has financial problems, in fact the states right now seem to have as bad financial problems as the Federal Government. Regarding the two cost sharing programs where 50 percent will be paid for by the State by 1993—is there a figure you have used in the past where you could say what the actual cost to the State will be if you used an average figure for the past, when you get the 50 percent, on the flood plain services and also just the planning assistance program?

Dr. **Dickey**. The Planning Assistance Program is funded at a level of about $5 million a year, and the Flood Plain Management Program level is on the order of $8 million to $10 million a year. Nationwide, we are talking about half of that amount being borne by the beneficiaries, the states or others.

Mr. **Ballenger**. The Congressman that was just here with me from California said has just had some difficulty around Los Angeles. When you figure the cost sharing, do you consider anything besides "out of pocket costs"?

Dr. DICKEY. Well, let's see. I am not sure how to respond to that question.

Oh, I understand. It is a question of contributions in-kind versus cash. In the cost sharing of the projects, the law does require contributions other than cash, for example, lands, easements, and rights-of-way. When it comes to things like technical services or information services, however, we try to avoid those kinds of cost sharing arrangements.

The administrative burden of keeping track is extraordinary and it's one of those kinds of things where you always have the auditors coming around and saying "Did they give 50 percent?" You have a problem placing a value on data or services. The administrative burden is such that we would certainly prefer to avoid those kinds of arrangements when it comes to cost sharing.

Mr. BALLENGER. Somewhere along the line, and I can't specifically lay out what happened in Los Angeles but he was somewhat upset, about the fact that the corps was charging back to the local governments their own money in costs. Is that familiar to you? Evidently it made the Los Angeles Times.

Dr. DICKEY. No, I frankly don't recall that matter.

Mr. BALLENGER. Well, I am afraid I will have to drop it, because I don't know enough about this particular incident and he should be back. But I do appreciate your giving me those costs estimates, roughly $12.5 million a year by the time they get to the 50 percent cost sharing.

Thank you, Mr. Chairman.

Mr. NOWAK. We will perfect that question and submit it to the Corps in writing for submission into the record.

Dr. DICKEY. I will be happy to respond.

Mr. NOWAK. Let me now turn to Congressman Bill Grant from Florida.

Mr. GRANT. Thank you, Mr. Chairman. I appreciate that.

Dr. Dickey, I am sorry I was not here earlier. I had a late plane. I would like to ask about two specific projects, if I might, just to get up to date on them.

The Kissimmee River project in Florida is of particular interest not only to all Floridians, but to the whole country, I think. It used to be a 98-mile river, and it was channelized, and was put into a direct channel only 48 miles long. We did that about 20 years ago. Since that time, the wetlands habitats have been reduced by about 75 percent, and the waterfowl population has been reduced about 90 percent.

Are you up to speed on that particular project, so that I could ask you a question about it?

Dr. DICKEY. I will try to answer your question. I do know a number of things about that subject.

Mr. GRANT. Congressman Lehman has asked the Corps to draft language that would accomplish the restoration purpose. Are you familiar with that, and are you able at this time to give us an indication of where you might be on that language?

Dr. DICKEY. I remember seeing that, sir, but I don't remember its specifics. Let me just make one general observation about where we might stand with regard to this, because there is a basic policy question here.

As you well know, there is a considerable interest and indeed, enthusiasm, about doing something to undo the project the Corps built a number of years ago. There are various proposals and studies that have been made. For the Administration to embrace any of those proposals, however, we will need a review of the proposals by the Corps, a study if you will. Then that proposal will be reviewed within the Administration by the Office of the Assistant Secretary and OMB. In this case, you could run into that problem, since you are trying to authorize something that hasn't been through our study process.

Mr. **Grant**. Okay. I could assume then, that Lake Lanier, in Georgia, might fall under the same general category then. There has been a proposal by some that we divert approximately 529 million gallons a day from Lake Lanier to serve the needs of Atlanta, a growing city. In effect, that diversion upon those areas downstream from Lake Lanier could be substantial, and I depend on you to follow that same line of reasoning, then, if we were to do a whole riverine study before we would attempt any action to divert any of that water just looking at it one-dimensionally.

Dr. **Dickey**. Certainly any activity which may involve some major changes in the way reservoirs are used, requires us to perform a full analysis of that and a weighing of the pros and cons.

Mr. **Grant**. Thank you, sir.

Mr. Chairman, thank you.

Mr. **Nowak**. Thank you very much. We have Mr. DeFazio from Oregon.

Mr. **DeFazio**. Thank you, Mr. Chairman, I pass at the moment on questions.

Mr. **Nowak**. Mr. Perkins from Kentucky.

Mr. **Perkins**. I have no questions at this time.

Mr. **Nowak**. Mr. Clement is also here from Tennessee, and we would turn the program over to him.

Mr. **Clement**. Dr. Dickey, it is good to have you here this morning. During House consideration of the Water Resources Development Act of 1988, I was successful in adding language to the bill that instructed the U.S. Army Corps of Engineers to conduct a study of the need to modernize and upgrade federally-owned and operated hydroelectric power facilities. The study required by Section 42 of the 1988 Act is supposed to be presented to Congress this year.

My question is when will the corps be done with that study?

Dr. **Dickey**. Mr. Congressman, we are well aware of the authority provided in Section 42 of the 1988 Act. That study has not been funded. We have not requested funding for it, nor has Congress appropriated money for it, so there is no report under preparation. Frankly, this has been a low-priority activity for us, because we believe that we can make our decisions about modernization of individual hydropower facilities under individual project authorities.

Mr. **Clement**. What about these hydroelectric facilities? Are you moving more and more toward privatization?

Dr. **Dickey**. There is always an interest in privatization of hydropower facilities. Recently, as you may know, there was an Army audit on that subject. I would say this is an issue that always remains before the corps as well as other agencies which own hydropower facilities.

Mr. CLEMENT. Well, you are privatizing some of them now, aren't you?

Dr. DICKEY. I am not aware of any, sir.

Mr. CLEMENT. I thought maybe that was the reason you are not interested in modernizing and upgrading the facilities.

Dr. DICKEY. In fact, under our own program, we improve our facilities when they are rehabilitated or replaced. We do make investments to make them more productive.

Mr. CLEMENT. In a report dated March 4, 1990, the Army auditing agency recommending selling or transferring the hydroelectric facilities on the Cumberland River to the Tennessee Valley Authority or other non-federal entity, given Congress' refusal to appropriate money to prepare or review studies or draft proposals designed to transfer out of federal ownership the facilities and functions of the Federal Power Marketing Administration, why did the Corps of Engineers waste money to undertake the study?

Dr. DICKEY. Are you referring to the auditor's study?

Mr. CLEMENT. Yes, the Army auditing.

Dr. DICKEY. I will have to let the auditors speak for themselves. I know they study a lot of things I wish they didn't study. The auditors in their normal processes raise all kinds of issues. They have their own agenda in many cases, and they are not——

Mr. CLEMENT. Was this study a waste of money?

Dr. DICKEY. I don't know sir; I haven't read it.

Mr. CLEMENT. The Corps of Engineers--is that what's happening now, they are studying too much, rather than doing worthy projects? They are studying things to death, just to keep people working?

Dr. DICKEY. I would hope not, sir.

Mr. CLEMENT. That's what you sort of implied a while ago, because a lot of these studies are meaningless.

Dr. DICKEY. I did not mean to imply that, I merely wish to note that the auditors do not take their instructions from us. They study things they consider to be worthy of investigation, independent many times of what someone else may think.

Mr. CLEMENT. Is that what we are doing these days, just constantly upgrading and studying more, but really not doing any brick and mortar work?

Dr. DICKEY. The corps own study program, with the reforms in the 1986 Act, and our life cycle project management system, is designed to avoid that kind of thing. When we have a cost-shared feasibility study, we are really confident we are doing something that somebody is interested in, because they are paying for half the cost of that study.

Mr. CLEMENT. How much did this study cost?

Dr. DICKEY. I do not know. I haven't seen that report.

Mr. CLEMENT. For the record, why don't you submit that later, those costs?

Dr. DICKEY. Yes, I will provide those costs for the record.

The audit by the Army Audit Agency was a spin-off from the Audit of Civil Works Management, U.S. Army Engineer Division, Ohio River. It was limited to one objective concerning the Cumberland River Basin Hydroelectric Facilities. The total cost of the audit was about $9,800.

Mr. NOWAK. Mr. DeFazio from Oregon.

Mr. DEFAZIO. Mr. Chairman, since we have gotten into something other than the user fees, and talked a little bit about sale or contracting out of assets, I would—and I don't know if the gentleman is familiar with this—there is a proposal in the northwest where the corps is reviewing operations of a number of hydroelectric dams with the intent of putting those projects out to bid. Is the gentleman familiar with the experience with the Hoover Dam——

Dr. DICKEY. No, I am not.

Mr. DEFAZIO. Where it was being operated by non-government entity, then the Corps took it over, and the utilization of the facility has increased dramatically? The concern I have is that the hydroelectric system in the northwest is running about 97 percent of capacity. You can't do much better than that, you are basically not having any unscheduled outages, downtime, maintenance problems. It is running very well.

I have a tremendous concern about looking at contracting this out. I would offer that most of the northwest delegation is very opposed, we don't see how you can improve on those operations. If the corps does persist, I expect that we may attempt, and I may attempt in this committee, to add amendments to any authorization requiring that the contracting out—anyone who contracts deliver at least the same utilization capacity or better, and that they pay very substantial penalties if they do not.

At that point, we might find people not bidding. There are some things Government can do well. I would say the corps is doing an excellent job of running the hydroelectric facilities in the northwest, and I don't see that the private sector could do any better than 97 percent. I don't think anybody could.

If you could convey that to the appropriate people in the organization, I would appreciate it.

Dr. DICKEY. I will do that, sir.

Mr. DEFAZIO. Thank you, Dr. Dickey, and thank you, Mr. Chairman.

Mr. NOWAK. Thank you, gentlemen.

Some of the problems we have heard about with various local agencies have been that the corps is being somewhat chastised or criticized for inflexibility in dealing with the local units in terms of putting together the LCAs when you are negotiating, that in the process of that more and more of the LCAs are being done in Washington than in the district.

I was wondering if under general kinds of authorities you have if a more flexible kind of policy is being looked at to be instituted, so that these LCAs can be taken care of in the district with the local governing units?

Dr. DICKEY. Mr. Chairman, I would be happy to address that, because it is an issue of great concern and interest to me. In fact, I have been very much involved in the whole process of clearing local cooperation agreements through the organization. We are prepared to decentralize our process, and indeed, have done that to the extent that we can to insure consistency in the application of the cost sharing rules.

I do not think that any of us appreciated how complicated the cost sharing rules would be for flood control where the value of the lands, easements, and rights-of-way plays a central role in the cost sharing formula. That valuation question has created all kinds of problems in consistent application of policy. We have found that we have had to resolve those conflicts or different interpretations in Washington and through the promulgation of guidance, some of that guidance, frankly, is pretty complicated.

We need to do more to get everybody on the same wavelength. Our paramount concern here, as I said, is consistency in application. We believe that consistency in application of the cost sharing rules is essential to the credibility of our program. There is a marvelous network of communication among our sponsors, and when somebody thinks somebody else is getting a different or better deal, everybody wants it.

In fairness to everyone, we insist on consistency.

Mr. NOWAK. I'm wondering if we can look to the future for some formalization of a policy that would lead to that consistency nationwide?

Dr. DICKEY. Yes, we have gone through several iterations, Mr. Chairman, of developing that policy and spelling it out to deal with all the possibilities which in fact have arisen.

Mr. NOWAK. On page 14 of your testimony, you mention the two-year cycle, and the importance of keeping to that cycle. This again is essential, I think, not only for consistency, as we just talked about, but certainly for the whole planning process to move in an orderly way through the system. We certainly look forward to discussing these proposals in more detail as we move into a markup of this very important legislation.

I want to thank you for coming here with this expanded explanation of the Corps' program for this year, and we will certainly look forward to working with you and the rest of the Corps leaders.

Dr. DICKEY. Thank you, sir.

Mr. NOWAK. Mr. Stangeland, do you have any further comments?

Mr. STANGELAND. I just wanted to say to Dr. Dickey that it is my intent, in lieu of any other authorship, to introduce your legislation on request, so that it sits before us in our markup process.

Dr. DICKEY. Thank you, sir.

Mr. NOWAK. Thank you very much again, Dr. Dickey.

[Dr. Dickey's prepared statement follows:]

UNITED STATES ARMY
OFFICE OF THE ASSISTANT SECRETARY OF THE ARMY
(CIVIL WORKS)

COMPLETE STATEMENT

OF

DR. G. EDWARD DICKEY
ACTING PRINCIPAL DEPUTY
ASSISTANT SECRETARY OF THE ARMY
(CIVIL WORKS)

BEFORE THE

SUBCOMMITTEE ON WATER RESOURCES

COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

U. S. HOUSE OF REPRESENTATIVES

ON

WATER RESOURCES DEVELOPMENT LEGISLATION

APRIL 24, 1990

**NOT TO BE RELEASED UNTIL APPROVED BY THE
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
U. S. HOUSE OF REPRESENTATIVES**

DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY OF THE ARMY (CIVIL WORKS)
COMPLETE STATEMENT OF THE
DR. G. EDWARD DICKEY
BEFORE THE
SUBCOMMITTEE ON WATER RESOURCES
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
U. S. HOUSE OF REPRESENTATIVES
April 24, 1990

INTRODUCTION

Mr. Chairman and Members of the Subcommittee, I am pleased and honored to be here today to testify on potential water resources development legislation in the 101st Congress. My testimony today is a follow-up to Secretary Page's testimony at your March 1, 1990 hearing and addresses the Administration's views for a supportable Water Resources Development Act of 1990 and discusses specific provisions of our draft bill.

Mr. Chairman, at your March 1, 1990 hearing, Secretary Page made several comments regarding the water resources development program that I believe are worth repeating. The Federal water resources development program is working well. In order to continue this success story, it is of prime importance to maintain the two-year authorization cycle and enact a Water Resources Development Act of 1990. It is essential to maintain the critical reforms of the landmark 1986 Act and the policy it established of putting the water resources program on a strong beneficiary pay basis. It is also important to maintain the Administration's policy of only recommending for authorization those projects which are economically justified, environmentally sound, and which have completed the Executive Branch review process. Finally, a water resources authorization bill for 1990 must reflect budget realities and must not shift non-Federal responsibilities to the Federal Government.

LEGISLATIVE INITIATIVES FOR 1990

I now will address our program and specific legislative proposals in more detail. Our legislative initiatives for 1990 include 18 proposals. These proposals can be divided into two general categories. The first category consists of those proposals necessary to implement the President's Fiscal Year 1991 budget proposal for Civil Works. Included in this category is a new initiative for research and development of a Magnetic Levitation Transportation System (MAGLEV). While this initiative may extend beyond the traditional water resources missions of the Army Civil Works program, I am introducing it with our legislative proposals because it relates directly to infrastructure, and I believe the Army Corps of Engineers has the planning, engineering, and construction expertise that can serve our nation well in this area. MAGLEV will be a unified Federal effort. We have formed a partnership with the Department of Transportation, the Department of Energy, and other Federal agencies to pool our talents and resources for this important program. The second category consists of those proposals which will enhance the management of our water resources, as well as allow the Department of the Army to address national problems. In addition, our legislative initiatives include recommendations for authorization of several water resources development projects that have been fully reviewed by the Executive Branch.

LEGISLATION NECESSARY TO IMPLEMENT THE PRESIDENT'S BUDGET

There are several legislative proposals necessary to implement the President's budget proposal. They include four cost recovery proposals: increased harbor maintenance fees; expanded recreation user fees at water resources development areas administered by the Corps of Engineers; and establishment of cost-sharing for the Section 22, Planning Assistance to States program and for the Flood Plain Management Services Program. Our legislative initiatives include proposals to authorize appropriations from the Harbor Maintenance Trust Fund, establish a Marine Waterways Trust Fund, and extend the environmental demonstration program. In addition, authorizing legislation is required to establish a new magnetic levitation program, which in partnership with other Federal agencies and the private sector, promotes the use of the Corps technical, scientific, and construction management expertise. A summary of each of these proposals follows:

Harbor Maintenance Fee. Our other major cost recovery proposal would increase the ad valorem rate on the value of commercial cargo subject to the fee from 0.04 percent to 0.125 percent. This would allow recovery of up to 100 percent of the eligible amount of the Operation and Maintenance dredging program costs and will allow recovery of the costs of certain National Oceanic and Atmospheric Administration programs that benefit the commercial navigation industry. This proposal is consistent with the precept that beneficiaries of services should pay for those services. It is also consistent with the cost sharing philosophy embodied in the Water Resources Development Act of 1986 where other water resources projects are operated and maintained at 100 percent non-Federal cost. The Harbor Maintenance Fee was established by the Water Resources Development Act of 1986 and intended to recover 100 percent of eligible operations and maintenance costs of the Saint Lawrence Seaway and not more than 40 percent of eligible operations and maintenance costs assigned to commercial navigation harbors and inland harbors.

Authorization of Appropriations from the Harbor Maintenance Trust Fund. This proposal would amend section 210(a) of the Water Resources Development Act of 1986, to authorize appropriations from the Harbor Maintenance Trust Fund to pay for up to 100 percent of the eligible operations and maintenance cost assigned to commercial navigation of all harbors and inland harbors within the United States. The current law allows appropriations of funds to pay for up to 40 percent of such costs. This proposal would also authorize appropriations of funds from the Harbor Maintenance Trust Fund into the newly created Marine Waterways Trust Fund for the purpose of reimbursing up to 100 percent of the expenditures incurred by the National Oceanic and Atmospheric Administration in carrying out its nautical charting and marine navigational safety programs and activities. No more than 0.01 percent of the value of commercial cargo subject to the port user fee can be used to reimburse NOAA's costs during any single fiscal year.

Creation of Marine Waterways Trust Fund. This proposal establishes a Marine Waterways Trust Fund in the Treasury of the United States. The funding sources for the newly created Trust Fund consist of transfers from the Harbor Maintenance Trust Fund and, if necessary, from appropriations out of the general revenues of the Treasury. The Trust Fund will be used to reimburse up to 100 percent of the costs incurred in carrying out nautical charting and marine navigational safety programs and activities of NOAA during each fiscal year beginning in FY 1991.

Recreation User Fees. One of our most important proposals would authorize the collection of user fees for use of specialized recreation sites and facilities, including but not limited to, improved campsites, swimming beaches, and boat launching ramps at water resources development areas administered by the Department of the Army. Enactment of this legislation would remove existing restrictions on the authority of the Department of the Army to impose reasonable charges for use of certain developed recreation areas under its administrative jurisdiction and would eliminate the requirement to provide one free campground at each project where camping is permitted. The legislation, however, is not intended to authorize the imposition of fees for general public access to water resources development projects.

The revenues would be used to administer one of the largest systems for outdoor recreation in the entire Federal Government. Currently, the bulk of the cost of operating and maintaining this extensive program has been borne by the general taxpayers even though an easily identifiable group -- those who actually visited our recreation areas and used our facilities -- derived a direct benefit at little or no cost to themselves.

Cost-Sharing of Planning Assistance to States. This cost-sharing proposal would authorize the Secretary of the Army to recover approximately 50 percent of the costs of providing water resources planning assistance under Section 22 of the Water Resources Development Act of 1974. The enactment of such legislation would enable the Secretary of the Army to maintain this successful program at current program levels while reducing the program's budgetary impacts by applying the cost-sharing. The assistance currently provided under this program supports and supplements States' efforts and, in many cases, becomes an integral part of a State's overall comprehensive water resources plan. Application of the cost-sharing and beneficiary-pay principles of the Water Resources Development Act of 1986 will allow the Corps of Engineers to maintain the current program level of support. Because beneficiaries of these programs have voiced the hardships that would be brought about by initiating cost-sharing in one year, it is proposed that the cost-sharing be phased in over a three-year period, beginning at 10 percent in Fiscal year 1991, 30 percent in 1992, and increasing to 50 percent in 1993.

Cost-Sharing of Flood Plain Management Services. Our other cost sharing proposal would authorize the Secretary of the Army to recover approximately 50 percent of the program costs of flood plain management services provided under Section 206 of the Flood Control Act of 1960 to beneficiaries of the services. The Secretary of the Army is currently authorized to provide flood plain information and assistance upon request from other Federal agencies and state, local and private interests to assist those entities in flood plain land use and development decision making. Similar to our Section 22 initiative, the cost-sharing would be phased in over a three-year period, beginning at 10 percent in Fiscal year 1991, 30 percent in 1992, and increasing to 50 percent in 1993. Cost recovery would be made through a combination of fee schedules and cost sharing agreements imposed on the various categories of technical services provided.

Environmental Demonstration Program. Section 1135 of the Water Resources Development Act of 1986, P.L. 99-662, as amended, authorized the Secretary of the Army to carry out an environmental improvement demonstration program in the two-year period beginning on the date of enactment of the 1986 Act, November 17, 1986. The improvement program is for the purposes of making such modifications in the structures and operations of water resources projects constructed by the Secretary before the date of enactment of that Act which will improve the quality of the environment in the public interest. Section 41 of the Water Resources Development Act of 1988, P. L. 100-676, extended the demonstration program period to 5-years.

The purpose of the environmental demonstration program proposal is to extend the program to 10-years in order to take advantage of any opportunities that may arise on any completed water resources project, as well as to demonstrate the viability of improving the quality of the environment and to allow potential cost sharing partners more time to obtain the necessary financing to support non-Federal participation. Presently, we are identifying and reviewing a number of demonstration proposals. However, because of continuing advancements in the environmental sciences and technology and identification of new environmental hazards it is impossible to identify today what demonstration programs will be needed in the future. The proposal would provide the Secretary of the Army with the flexibility needed to respond to demonstration opportunities in a timely manner and would allow modifications initiated in 1991 to continue through a two-year period.

Magnetic Levitation Transportation System (MAGLEV). Our magnetic levitation proposal would provide authority for the Army Corps of Engineers to continue to participate with the Department of Transportation, the Department of Energy, and other Federal agencies in the development and implementation of a pilot program for an advanced

MAGLEV system. The goal of the Federal MAGLEV initiative is to stimulate the United States private sector development of a MAGLEV transportation system within the United Sates. The Corps role in accomplishing this goal would be to apply its engineering and management expertise to a fast track program designed to stimulate U. S. R & D and establish U. S. leadership in MAGLEV technologies and associated sciences and industries. We believe that such an approach, fully utilizing U. S. strengths in superconductivity, composite material and modular construction, could produce a system with significant economic and other advantages over existing foreign systems. Federal involvement in the program would include the preparation of concept designs, which would be cost-shared and prepared by private industry, and feasibility, market and technical assessments.

OTHER LEGISLATIVE INITIATIVES

There are other legislative proposals that are not necessary to implement the President's budget proposal but are necessary to enhance the management of our water resources program, as well as to allow the Corps to address national problems. In addition, these legislative initiatives include recommendations for authorization of several water resources development projects that have met Executive Branch review criteria. These proposals are:

- Project authorizations.
- Project modifications.
- Protection of software development.
- Assistance to non-Federal public entities.
- Challenge cost-sharing program for the management of recreation facilities.

- Project interest and discount rates.
- Assistance to private entities.
- Administration of Harbor Maintenance Trust Fund.
- Overtime pay for emergency work
- Emergency and disaster authority.

A summary of each proposal follows:

Project Authorizations and Modifications. Our legislative proposal for 1990 includes four projects recommended for authorization: the flood control project for Coyote and Berryessa Creeks, California; the flood control project for the Passaic River mainstem, New Jersey and New York; the flood control project for Mill Creek, Tennessee; and the flood control project for Nogales Wash and Tributaries, Arizona. The bill also includes one project modification: the project for navigation and other purposes, Ray Roberts Lake, Greenbelt, Texas. Subsequent to our legislative proposal, the Administration has recommended four additional projects for authorization: the flood control project for Fort Wayne, Indiana; the flood control project for Ecorse Creek, Michigan; the flood control project for Rio de la Plata, Puerto Rico; and the navigation project for Miami Harbor Channel, Florida.

Protection of Software Development. This proposal would make the Construction Productivity Advancement Research (CPAR) program legislation passed in the Water Resources Development Act of 1988 more effective by enhancing the commercialization of Federally developed software. The proposal is aimed at protecting software algorithms from disclosure to the general public while cooperative research and development agreements are being negotiated. The legislation would permit the Corps of Engineers to withhold from disclosure to the public

Federally developed information that would disclose the algorithm of any software that is the object of a technology transfer agreement. The information would be withheld until the intellectual property rights were negotiated under a Cooperative Research and Development Agreement.

Current technology transfer, patent, and copyright laws do not protect the confidentiality of Federally developed software which might be commercialized under the CPAR program. As a result, during the bargaining process between the Government and a potential non-Federal partner, the Federally developed software can be obtained by the public through requests under the Freedom of Information Act, thereby creating an exposure risk during this process which may stifle the interest of the potential private partner to further develop the software to make it commercially exploitable. This has the effect of reducing the Government's ability to achieve full public benefit of publicly developed software.

Assistance to Non-Federal Public Entities. Another of our proposals would authorize the Chief of Engineers to conduct reimbursable work for a state or political subdivision of a state whether or not Federal assistance is involved. Existing legislation (10 U.S.C 3036(d) (2)) authorizes the Chief of Engineers to provide services to another department, agency, or instrumentality of the U.S. or to a state or political subdivision of a state. These services include but are not limited to studies and planning activities, engineering and design, construction management, and training. Currently, these services may be provided to a state or political subdivision of a state only if the work to be undertaken on behalf of the non-Federal interests involves Federal assistance and the head of the department or agency providing the Federal assistance does not object to the provision of services by the Chief. The present provision unduly limits the circumstances under-which the Corps can provide reimbursable services.

"Challenge" Cost-Sharing for Recreation Development. Our "challenge" cost-sharing provision would authorize the Secretary of the Army to establish a "challenge" cost-sharing program for the management of recreation facilities and natural resources at water resources development projects under the Secretary's jurisdiction. This cost-sharing program challenges the non-Federal sector to join in partnership with the Corps to manage recreation facilities and natural resources at projects where such facilities and resources are being maintained with Federal funds. Specifically, it would permit the Secretary to enter into cooperative arrangements with non-Federal public entities, private groups, and individuals to accept donations of funds, materials, and services. A donation could be applied toward a specific facility or spread among facilities or projects, depending upon the terms of the particular cooperative arrangement. The legislation would not affect non-Federal cost-sharing requirements under other laws. This legislative proposal is consistent with the partnership concepts in the Water Resources Development Acts of 1986 and 1988. It recognizes the reality of Federal budgetary constraints and offers the non-Federal sector an opportunity to join in partnership with the Corps to greatly enhance the use of limited Federal dollars.

Project Interest and Discount Rates. Our project interest and discount rates provision eliminates the "grandfather" clause of the Water Resources Development Act of 1974, P.L.93-251. Section 80 of the Act directs that the interest rate for discounting future benefits and computing costs be based on Water Resources Council formula published on 24 December 1968. In addition, Section 80 freezes the interest rates at the rate in effect immediately prior to 24 December 1968 for projects authorized prior to 3 January 1969 provided satisfactory assurances of local cooperation were received by 31 December 1969. This "grandfather" clause has been with us now for 15 years and has set the base interest rate for these "grandfathered" projects at 3-1/4%. This has resulted in projects not being supported in today's environment of much higher interest rates. The original intent of providing a transition between old and new discount rate calculations has long since served its purpose. Also, projects not started in 15 years should not be expected to be judged on such outdated discount rates any longer. Our project interest and discount rate legislation would introduce an expiration date of December 31, 1990 into this "grandfather" clause by amending P.L. 93-251.

Assistance to Private Entities. Under existing law, the Department of the Army can perform work or services for other Federal agencies and for states or political subdivisions of states. Currently, however, there is no similar authority to provide such assistance to the private sector, even though there may be a legitimate need for such assistance in an area within the Corps' expertise. The proposed assistance to private entities legislation would provide authority for the Department of the Army to perform work or services which are within the Civil Works mission of the Corps of Engineers and which are in the public interest for corporations, partnerships, limited partnerships, consortia, public and private foundations, or nonprofit organizations, provided such entities certify that the work or services are not otherwise reasonably and expeditiously obtainable from the public sector and furnish funds to the United States to cover any and all costs of the work or services in advance of fiscal obligations by the United States.

Administration of Harbor Maintenance Trust Fund. Our harbor maintenance administration proposal would authorize appropriations from the Harbor Maintenance Trust Fund to pay administrative expenses incurred by the Department of the Army, the Department of the Treasury, and the Department of Commerce in administering the port use fee imposed by Section 4661 of the Internal Revenue Code of 1954. This legislation is needed because the United States Customs Service will not be able to sustain an adequate resource commitment, manpower, and funds for the administration of the Harbor Maintenance Trust Fund program unless a source of funding is found for the administration and enforcement of the program. Previously, Customs drew necessary funds from their Commercial Merchandising Processing Fee. A 1988 General Agreement for Tariff and Trade (GATT) user fee decision requires that Customs' Commercial Merchandising Processing Fee resources be dedicated only to Customs commercial activities. This placed domestic law in conflict with the GATT. Therefore, a new source of funding for administrative services is needed to ensure that there will be no decrease of tax revenue from this source.

Overtime Pay for Emergency Work. The major natural disasters in 1989, i.e., Hurricane Hugo and the Loma Prieta earthquake, have made the Corps of Engineers acutely aware of the statutory limitation on overtime pay for civilian employees directly involved in emergency response work. Corps personnel affected by this situation donate their time but do not get paid. The purpose of this proposal is to raise the pay period overtime ceilings for Corps of Engineers employees working on or in support of emergency or disaster relief efforts. The special pay provisions would be applicable only where there has been a determination or declaration by the President, in accordance with the Robert T. Stafford Disaster Relief and Emergency Assistance Act, that an emergency or major disaster exists.

Emergency and Disaster Authority. Our disaster authority proposal would authorize the Corps of Engineers to plan and prepare for response to any natural disaster. The Corps of Engineers has an excellent record for responding quickly to requests for assistance during times of disasters. This proposal will enable the Corps to plan, prepare for, and respond more effectively to the broad spectrum of natural disasters, and will enable the Secretary of the Army to be fully responsive to requests for emergency assistance.

SUMMARY

Mr. Chairman and Members of the Subcommittee, we commend you for your role in structuring economically sound and environmentally sensitive water resources programs through the 1986 and 1988 WRDA's. We applaud your efforts to continue the two-year authorization cycle and urge you to consider legislation for 1990 which is true to the reforms established by the previous two water resources Acts. We look forward to working with you in developing the 1990 authorization bill. We pledge our support in working with you and the Senate to develop a supportable bill; and we are optimistic that our combined efforts will have a successful outcome.

We want to commend the Subcommittee's initiative in conducting this hearing. This Subcommittee's leadership has reestablished a two-year authorization cycle for projects and programs administered by the Corps of Engineers. As you know, the timely authorization of Army Corps of Engineers projects that are the product of an orderly planning process, which includes final Executive Branch review and approval, is essential to having a credible Civil Works program. Without your leadership and active support, this would not be possible.

Mr. Chairman, I would be pleased to answer any questions you or other members of the Subcommittee may have.

Mr. Nowak. Now I would like to return to our agenda and invite the Honorable Jill Long from Indiana to speak. She is accompanied by Charles Redd, who is the President of the Common Council, Fort Wayne, Indiana, the Honorable Paul Helmke, the Mayor of the City of Fort Wayne, Jack Worthman, who is the Commissioner of Allen County.

Congressperson Long, you may proceed as you desire.

FORT WAYNE FLOOD CONTROL

TESTIMONY OF HON. JILL LONG, A U.S. REPRESENTATIVE FROM THE STATE OF INDIANA, ACCOMPANIED BY CHARLES REDD, PRESIDENT, COMMON COUNCIL, FORT WAYNE, IN; PAUL HELMKE, MAYOR, CITY OF FORT WAYNE, IN; AND JACK WORTHMAN, COMMISSIONER, ALLEN COUNTY, IN

Ms. Long. Thank you, Chairman Nowak and Mr. Stangeland. Thank you for the opportunity to testify today on a matter that is very important to the City of Fort Wayne and Allen County in northeastern Indiana.

I am pleased to be joined by the Mayor of Fort Wayne, the Honorable Paul Helmke; the President of the Common Council, the Honorable Charles Redd; and President of the Allen County Commissioners, Jack Worthman, to stress the importance of this project for our community.

We are here today to request authorization for the construction of the Fort Wayne Metropolitan Area Flood Control Project. This project is the result of careful planning by the Army Corps of Engineers and officials from both the City of Fort Wayne and Allen County. We are requesting authorization for the project equal to the Corps' cost estimate of $16.3 million for total construction. Non-Federal sources would provide $4.2 million for the flood reduction project, while the federal share would be $12.1 million.

The City of Fort Wayne is in the Maumee River Basin. The Maumee River is formed by the convergence of the St. Mary's and St. Joseph's rivers. These two rivers come together to form the Maumee River in downtown Fort Wayne near many businesses and homes.

Fort Wayne is the second largest city in Indiana, and the largest city in my congressional district. Generally, critical flood periods occur in Fort Wayne with heavy winter and spring rains, coupled with snow melt, when the ground is already saturated with water, on the average of once every five years.

A devastating flood occurred in the Maumee River Basin in 1913, which resulted in millions of dollars worth of damage and the loss of many lives. Numerous floods have occurred since that time, including the flood of February, 1982, which caused over $50 million in damages. The Maumee River crested near 26 feet, over 10 feet above the flood stage, and remained above flood stage for two weeks, affecting many residential structures and businesses. Over 3,000 structures were flooded, and 9,000 people were evacuated from these areas.

The flood also damaged approximately eight miles of levees in Fort Wayne. The most serious damage was to the Pemberton Dike, a 3,000-foot long levee, which protects a residential area. It was estimated that an additional $25 million in damages would have occurred had that dike failed.

There is frequently flooding in Fort Wayne. In June of 1989, the city was again flooded as the river crested near six feet above flood stage for several days. Numerous homes and businesses were affected.

Just two months ago, in February, the river was once again above flood stage. Although it was predicted to approach a level of 24 feet, we were fortunate that it only rose to near 21 feet, but still six feet above flood stage. The citizens of Fort Wayne, in a practice they are all too familiar with, formed sand bagging brigades to protect their neighborhoods. They placed over 25,000 sand bags to reinforce the protection provided by the dikes.

Over the last decade, three floods have collectively caused more than $110 million in property damages in Fort Wayne.

Mr. Chairman and members of the subcommittee, this construction authorization is necessary for the timely completion of this project. There is strong local support for the project, both Fort Wayne and Allen County have funds available for the construction cost sharing. You may be interested to learn that the city and county both financially participated in the initial feasibility report in 1987 for this project to illustrate their support. It is my understanding that this was one of the first examples of cost sharing for feasibility reports for Corps projects.

The Fort Wayne Flood Control project has been thoroughly studied from an environmental and economic standpoint. An Environmental Impact Statement was completed in August of 1988.

The corps expects to complete the Design Memorandum in June of 1991. We are all ready to initiate construction in 1992, and we urge this authorization so as not to delay these efforts.

One final point, Mr. Chairman. An Army Corps of Engineers cost benefit analysis yielded a benefits to cost ratio of nearly two and one half to one. This project has received broad support from the citizens of Fort Wayne and Allen County. They persevered through devastating floods in the past, but the damaged dikes may not hold up when we have our next major flood.

Your authorization of this project would be greatly appreciated.

Thank you for your consideration of our request.

It is a privilege for me to turn this over to Mayor Paul Helmke. This is a bipartisan group of individuals, by the way, Republican Mayor Helmke, Democrat Charles Redd, and Republican Commissioner Jack Worthman.

Mayor **HELMKE**. Thank you, Mr. Chairman and members of the subcommittee. It is an honor to be here.

This is a matter that has long been a priority for the citizens of my city, Fort Wayne, Indiana. Congresswoman Long talked briefly about our flooding history. In 1913, we had our worst flood ever. There were six people who died in that flood, four of them were children. Fifteen thousand people at that time, 21 percent of our population back then, were left homeless. There were millions of dollars in property damage. That was 1913.

In 1982, we had an even more severe flood. There was $50 million worth of damage. President Reagan came out and threw sand-bags on the levees along with the children and high school students who fought the flood. That was eight years ago.

Since that time, it has become almost a yearly event to have floods in our community. With each new year, the threat of a flood or floods looms large. We have had two floods within the last year alone. With each new flood, the damages to the construction continues, and with each new year, I get more and more calls from the people in my community wanting to know why we haven't done something.

Trying to explain to them the process that we go through with the Army Corps of Engineers, with the United States Congress, with State authorities and other local authorities leaves them wondering when the floods will stop. I believe it is imperative that we take steps now to make sure we can stop the flooding in the future.

The elected officials of Fort Wayne, Allen County and the State of Indiana have taken major steps to bring flood control to the community. All that stands between the promise of significant flood control and the citizens of Fort Wayne and Allen County is funding. We need you and the members of Congress to authorize the Army Corps of Engineers diking project, and the Federal Government's share of $12.1 million for the project.

The diking project that is before you would complement a part of our three-pronged approach to flood control. We have a river-widening project on tap, which will lower flood stages nearly 1.3 feet. We have plans to create a park in our downtown, acquiring land for a headwaters park, which will flood naturally when the rivers rise.

When completed, the diking project will remove more than 3,000 structures from the flood plain. The homes, lives and businesses of those who reside there finally will be protected from the ravages of the flooding. They will no longer need flood insurance. The Federal Government will have 3,000 less property owners to worry about when the next flood hits Fort Wayne.

This flood control package makes sense. Nobody questions whether we should protect our homes from the threat of fire. We don't question the expense involved in that situation. It is time to get rid of the delays here. Because of the delays in this case, millions of dollars more than we are requesting have already been spent paying for damages caused by floods. That doesn't make sense to me.

Thirty thousand residents of Fort Wayne's regulatory flood plain need protection. Nearly 200 years ago, the Federal Government established a military outpost at the confluence of our three rivers. The city that followed that fort is still affected by the decision to locate at the strategic position on the three rivers. That's the reality we face today. That's the reality that has the price tag in terms of lives and money.

Fort Wayne has been paying the costs for nearly 200 years. It is time to stop the problems the rivers have caused us. I hope you agree.

Thank you for this opportunity. I urge each of you to support our request.

Ms. LONG. I wish to introduce, from the City of Fort Wayne, the President of the Common Council, Charles Redd.

Mr. **Redd**. Thank you, Ms. Long, Mr. Chairman and members of the subcommittee.

On behalf of the Fort Wayne Common Council, I wish to thank each of you and our Congresswoman, Jill Long, for providing me and other local government officials an opportunity to comment upon why funding authorization is needed at this time.

In addition to my duties as president of the council, I serve on a commission that is charged with the responsibility of trying to mitigate flooding in the downtown business district and other parts of the city. For the last five years we have managed to receive commitments from both the public and private sectors of Fort Wayne, and Allen County, Indiana, to plan and execute a flood control program in northeast Indiana, and parts—eventually—of northwest Ohio.

To date we have received a grant through the community development bloc grant program to remove properties from the flood-prone areas. We will also receive an appropriation from the State of Indiana. However, this source of funding is dependent upon the success of a lottery. In both cases, it is not nearly enough to cover the costs of implementing a plan which will reduce flooding not only in Fort Wayne, but also downriver in small communities such as New Haven, which has a population of about 3,500.

Sometimes I have a little difficulty determining what is downriver and what is upriver, since I am an urban dweller.

As a member of the primary fiscal body of Fort Wayne, it is my responsibility, along with my council colleagues, to provide an adequate budget to meet the service demands of our citizens. We cannot determine the cost of emergency preparedness, but with your assistance, we can reduce the damage, not only to property and its value, but to the sense of security the citizens of Fort Wayne and Allen County have in their respective homes and in their places of employment.

We can all make the same observation of a former mayor of the City of Terre Haute, which is located in western Indiana. The quote is "The good Lord brought it, the Lord will take it away. Wait on the Lord." But in my judgment, I believe sometimes the Lord would like to have some help. That is why the citizens of Fort Wayne and Allen County are asking you for some help.

Again, thanks to you, Mr. Chairman, and members of this subcommittee, for this opportunity.

Ms. **Long**. Thank you. It is also a privilege to have with us today Allen County Commissioner Jack Worthman.

Mr. **Worthman**. Thank you.

I am here to say about the same thing, except to say that we have 300,000 people who live with the threat of flood every day, almost every day, every spring. The most notorious flood was in 1913. From the newspaper of that date, it sounds like they could have done something to solve the problem within the next year. They did not. We have done a lot of things.

In that flood, six little girls were being evacuated from an orphanage in a rowboat, and the boat overturned and they were drowned. We have not lost any lives since then, although in our most notorious or most famous flood in 1982, there were 9,000 homes evacuated, 3,000 homes flooded, 27 percent of the community was under water.

As Mr. Redd says, we have lost no lives through the grace of God. I keep getting messages from God saying that we could help him a whole lot by doing a little bit. To me this project is just that. It will help a lot. Allen County has a separate project that is going to cost about $9 million that will enhance this project of the corps, that will reduce flooding, and in combination with the Corps' project it will raise the dikes, enhance and lengthen them. We think we will have a solution to this problem so our people don't have to live with the threat of flooding and loss of lives.

We are here to ask you to allow this project to move on to completion. The county is willing to come up with our share, as well as the city, to pay for it. We are not asking the corps to do everything. We are willing to put our mouth and our money together and help this project along.

We hope that you will support this program and allow it to move forward. I am concerned with saving lives, homes and jobs, and I hope you will help us.

Thank you.

Mr. **Nowak**. Thank you all very much for your testimony. You make a very convincing case and certainly have provided the kind of local support and encouragement that enables these projects to go forward.

In 1913—that seems like a long time ago—when you had your first flood. With the process that we hopefully have engendered with the corps over the last several years, and the cost sharing, these projects can move forward in a much more orderly and timely way.

Your representation here certainly shows that you have done your homework. It is local officials that make our job on this committee a lot easier as we proceed. Certainly Congresswoman Long has talked to me about this project on other occasions, referring to something that not only raises the quality of life, but provides something in terms of your whole economic security and hopefully physical security, as we move forward.

We certainly hope to move expeditiously as we consider our bill this year with such projects that show not only good conscience, but the active participation of all the local officials, and I want to thank you for coming.

Congressman Stangeland?

Mr. **Stangeland**. I can only reiterate what the Chairman says, Ms. Long, and to the President of the Council, and County Commissioner and the Mayor. It is just a classic example of what can be done when local people work with the District Engineer of the Corps to meet and resolve a problem.

In all fairness, I do want to ask you one question. You may want to comment for the record. I understand the local sponsors are going to widen four miles of the river in connection with the project. There are those who believe that that widening cost should not be credited to the local nonfederal cost of the project. I wonder if you want to comment on that at all.

Mayor **Helmke**. At this time we are not counting those projected costs as part of our local share. We have been in some discussions with the corps as to what would count and what would not count. There are a number of environmental mitigating factors, costs that are involved in that widening, as well as some recreational factors, that might end up counting under one of the corps' other formulas.

The widening is something that we see as crucial, because it does lower the river crest close to 1.3 feet. That means there is another foot plus that we don't have to build the dikes to. That makes for a better quality of life, as well as lessening the costs to the Army Corps of Engineers in terms of the diking project.

Mr. STANGELAND. Do you have the estimated cost of that widening project?

Mayor HELMKE. I think it is about $8 million.

Mr. WORTHMAN. It is about $8.8 million.

Mr. STANGELAND. So it is substantially more than what your share is considered to be.

Mayor HELMKE. That's right. We are getting state funding on that. When we put together the entire project, the widening and diking, we are looking at the state's share being about 34 percent, most of that will go the widening, 17 percent from local funds, most of that going toward our share on the diking project, and 49 percent federal funds.

Mr. STANGELAND. Thank you very much for that excellent testimony, and I have to tell you, Ms. Long, that this committee has a philosophy that there are no Republican bridges or Democratic floods.

Ms. LONG. We have the same philosophy in the Fourth District. Thank you.

Mr. NOWAK. Mr. Clement from Tennessee?

Mr. CLEMENT. No questions.

Mr. NOWAK. Mr. Perkins?

Mr. PERKINS. I will pass.

Mr. NOWAK. Again, let me reiterate our thanks for the information. We appreciate the credible input we have received from members who have taken the time and energy to work toward this. Ms. Long has worked hard on this project. I think the consolidation of all the local interests—as we say on this committee, we don't build a Republican or Democratic dam, we build a performing dam on a flood control project.

We thank you again for your input, and we look forward to working with you. If we have further questions as our review progresses, we will certainly get back in touch with you. Thank you again for attendance.

Ms. LONG. Thank you, Mr. Chairman, and Mr. Stangeland.

[The prepared statement of Ms. Long follows:]

TESTIMONY OF CONGRESSWOMAN JILL LONG
4TH CONGRESSIONAL DISTRICT OF INDIANA

before the

COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
SUBCOMMITTEE ON WATER RESOURCES
April 24, 1990

Chairman Nowak and members of the Subcommittee, thank you for the opportunity to testify today on a matter that is very important to the people of the City of Fort Wayne and Allen County in northeastern Indiana. I am pleased to be joined by the Mayor of Fort Wayne, the Honorable Paul Helmke; the President of the Common Council, the Honorable Charles Redd; and Allen County Commissioner, Jack Worthman, to stress the importance of this project for our community.

We are here today to request authorization for the construction of the Fort Wayne Metropolitan Area Flood Control Project. This project is the result of careful planning by the Army Corps of Engineers and officials from both the City of Fort Wayne and Allen County. We are requesting authorization for the project equal to the Corps cost-estimate of $16.3 million for total construction. Non-federal sources would provide $4.2 million for the flood reduction project, while the federal share would be $12.1 million.

The City of Fort Wayne is in the Maumee River basin. The Maumee River is formed by the convergence of the St. Mary's and St. Joseph's Rivers. These two rivers come together to form the Maumee River in downtown Fort Wayne near many businesses and homes.

Fort Wayne is the second largest city in Indiana and the largest city in my Congressional District. Generally, critical flood periods occur in Fort Wayne with heavy winter and spring rains, coupled with snow-melt, when the ground is already saturated with water, on the average of once every five years.

A devastating flood occurred in the Maumee River basin in 1913, which resulted in millions of dollars worth of damage and the loss of many lives. Numerous floods have occurred since that time, including the flood of February 1982, which caused over $50 million in damages. The Maumee River crested near 26 feet, over 10 feet above the flood stage, and remained above the flood stage for two weeks, affecting many residential structures and businesses. Over 3,000 structures were flooded and 9,000 people were evacuated from these areas. The flood also damaged approximately eight miles of levees in Fort Wayne. The most serious damage was to the Pemberton Dike, a 3,000-foot long levee, which protects a residential area. It was estimated that an additional $25 million in damages would have occurred had the dike failed.

There is frequently flooding in Fort Wayne. In June of 1989, the City was again flooded as the river crested near 6.0 feet above flood state for several days. Numerous homes and businesses were affected.

And just two months ago, in February, the river was once again above flood stage. Although it was predicted to approach a level of 24 feet, we were fortunate that it only rose to near 21 feet, but still 6.0 feet above flood stage. The citizens of Fort Wayne, in a practice they are all too familiar with, formed sand-bagging brigades to protect their neighborhoods. They placed over 25,000 sand bags to reinforce the protection provided by the dikes.

Over the last decade, three floods have collectively caused more than $110 million in property damages in Fort Wayne.

Mr. Chairman and members of the Subcommittee, this construction authorization is necessary for the timely completion of this project. There is strong local support for the project. Both Fort Wayne and Allen County have funds available for the construction cost-sharing. You may be interested to learn that the City and County both financially participated in the initial feasibility report in 1987 for this project to illustrate their support. It is my understanding that this was one of the first examples of cost-sharing for feasibility reports for Corps projects.

The Fort Wayne Flood Control project has been thoroughly studied from an environmental and economic standpoint. An Environmental Impact Statement was completed in August of 1988.

The Corps expects to complete the Design Memorandum in June of 1991. We are all ready to initiate construction in 1992, and we urge this authorization so as not to delay these efforts.

One final point, Mr. Chairman, an Army Corps of Engineers cost-benefit analysis yielded a benefits to cost ratio of nearly two and one-half, to one. This project has received broad support from the citizens of Fort Wayne and Allen County. They have perservered through devastating floods in the past, but the damaged dikes may not hold up when, not if, we have our next major flood.

Your authorization of this project would be greatly appreciated.

Thank you for your consideration of our request.

[The prepared statement of Mayor Helmke follows:]

Statement before U.S. Congress, regarding the Fort Wayne Metropolitan Area Flood Control Project - Mayor Paul Helmke

Tuesday, April 24, 1990

To Chairman Nowak and members of the Subcommittee, thank you for this opportunity to present testimony on a matter that has long been a priority for the citizens of Fort Wayne, Indiana.

I'd like to talk just briefly about Fort Wayne's flooding history. In 1913, Fort Wayne experienced its worst flood ever. We suffered the loss of six people in that flood, four of whom were children. Fifteen thousand people, 21% of the city's population of 71,000 at that time, were left homeless. As you might imagine, we also suffered millions of dollars in property damage.

With each new year, the threat of a flood or FLOODS looms large - Fort Wayne has had two in the past year. With each new flood, damage to property continues. With each new year, the people in my city ask why the problems still haven't been solved. We might never escape the shadow of destruction that lingers with any flood, but I believe its imperative that we do everything we can to try.

The elected officials of Fort Wayne, Allen County, and the State of Indiana have taken great strides to bring flood control to the community. All that stands between the promise of significant flood control and the citizens of Fort Wayne and Allen County is funding. We need you and the members of Congress to authorize the Army Corps of Engineers Diking Project, and appropriate the federal government's share of $12.1 million for the project.

The diking project complements our three-pronged approach to flood control. We have a river-widening project on tap, which will lower flood stages nearly 1.3 feet, and plans for a "Headwaters" park in our downtown, which can flood naturally when the rivers rise.

When completed, the diking project will remove more than 3,000 structures from the floodplain. The homes, lives, and businesses of those who reside there will be forever protected from the ravages of flooding. They will no longer need flood insurance. The federal government will have 3,000 less property owners to worry about when the next flood hits Fort Wayne.

This flood control package makes sense. Nobody questions whether or not we should protect our homes from the threat of fire, or what it might cost. But because of delays, millions of dollars more than we're requesting have been spent paying for the damages caused by floods. That makes no sense to me.

Thirty thousand residents of Fort_Wayne's regulatory floodplain need protection. Nearly 200 years ago, the federal government established a military outpost at the confluence of our three rivers. The city that followed this fort is still affected by that decision to locate at the strategic position on the three rivers. That's the reality we face today. That reality comes with a price tag, in terms of lives and money. Fort Wayne has been paying the costs for years. In my opinion, it's time to stop the problem. I hope you all agree.

Thank you for this opportunity. I urge each of you to support our requests.

Mr. **Nowak**. I would like to turn now to Edward Osann, who is the Director of the Water Resources Program of the National Wildlife Federation.

WATER RESOURCES/EARTH DAY

TESTIMONY OF EDWARD R. OSANN, DIRECTOR, WATER RESOURCES PROGRAM, NATIONAL WILDLIFE FEDERATION, WASHINGTON, DC

Mr. **Osann**. Thank you, Mr. Chairman. My name is Edward Osann, and I am the Director of the Water Resources Program for the National Wildlife Federation.

I have a statement that I have submitted to the committee. I will not attempt to read it in its entirety, but rather to hit some of the high spots.

Mr. **Nowak**. Without objection, your complete statement will be incorporated into the record.

Mr. **Osann**. Mr. Chairman, I think this is a particularly appropriate time to be talking about a Water Resources bill here during what has been designated as Earth Week, and many of the members having returned from Earth Day activities in their own districts. The Water Resources Program of the Corps of Engineers in the past has been symptomatic of some of the environmental problems that the country has faced, and that the Federal Government has faced.

At this point, this bill can be an important manifestation of new directions for the corps and for the country and an important reflection of greater sensitivity to environmental needs and preferences of our citizens. I really appreciate the opportunity to testify here on what we hope will be the Water Resources Development Act of 1990.

As you know, Mr. Chairman, the National Wildlife Federation supported the Water Resources Development Act of 1986, the first time in modern times that our organization or any major conservation group has supported a water resources authorization bill. We did so because of the foresight and the ability of the Congress and the Administration to combine new authorizations for water resources development with badly needed and long overdue policy reforms for this program.

The 1986 Act was basically a relatively small bill, authorizing a number of new projects, and broke no new ground in terms of policy, but rather reestablished the biennial cycle for water project authorizations, which we support, and reconfirmed the application of the cost sharing and other reforms contained in the 1986 Act.

We believe the time has now come once again to consider some important new policy directions for the corps. While the reforms of the 1986 Act have generally worked well, our experience to date has identified some limitations that need to be addressed. We could just say that cost sharing does not solve all water resources problems. There are at least five areas where we think Congress and the Administration should come together to strengthen the civil works program before authorizing additional millions of dollars for corps water projects.

These would include improvements and reforms in the area of flood plain management, shoreline protection, wetlands protection, reservoir management, and agricultural benefits. The latter is a planning consideration. In addition, we recommend that a similar set of financial environmental reforms be developed and included in the bill for that portion of the small watershed program of the Soil Conservation Service that is within this committee's jurisdiction.

With regard to flood control, I would summarize by stating that in our view federal investment in flood control should be reduced where State and local governments allow unwise flood plain development. For decades now, local government planners and State officials have known of the functioning of flood plains and the hazards of flood plain development. Since its enactment in 1968, the Federal Flood insurance program has provided the great majority of flood prone communities with detailed mapping of flood hazards.

Yet widespread development of flood plains continues, involving both structures that are subject to flood damage, and filling of flood plains that constrict flood flows and raise the flood hazard levels to higher elevations to remaining properties.

The Federal Flood Control Program is increasingly being called upon to protect not only the riverside communities that were settled in an earlier era, but the subdivisions and shopping centers of the 1970s and 1980s, where the risks were well-known but disregarded. The cost sharing requirements enacted in 1986 are insufficient to prevent this needless risk and attendant damage to riparian resources. We recommend that this legislation establish a date certain after which no new or substantially reconstructed structures located in a 100 year flood plain could be included in the benefit base for justifying new federal flood control projects.

Additionally, we recommend that the presence of such structures and other floodway constrictions should serve to raise the non-federal share of any project that may still be justified.

A related problem involves flood control structures that allow or actually encourage additional flood plain development, justifying more costly flood control measures for the induced development. Many projects are justified in size by the inclusion of flood damage reduction benefits for future flood plain development in the benefit cost analysis. We would recommend that this bill direct the Secretary of the Army to eliminate flood damage reduction benefits attributable to new development in flood plains and high hazard coastal areas from the benefit base for justifying new federal projects.

Mr. Chairman, the 1986 Act contained a little discussed but important provision relating to planning for flood control projects in the future. It required that for all new plans that were prepared after that time, that a predominantly non-structural plan be developed and presented wherever a predominantly structural flood control plan was being recommended. The plans that are before the committee for consideration for inclusion in the 1990 bill were by and large initiated prior to the enactment of the 1986 Act.

So we don't have the benefit of that predominantly non-structural alternative as a basis for comparison for the Passaic River Project, the Fort Wayne Project, the Mill Creek Project, or any others in the bill. We are in kind of a twilight, where we know the planning improvements we want to see, but the plans that we are looking at were initiated prior to that requirement.

Our hope is that in the future the committee and the public will have a wider base of information, a wider range of alternatives to compare and evaluate, and not face the particular conundrums that are posed by these and similar projects.

A second general area of reform relating to shoreline development and beach nourishment somewhat similar to our first proposal is that federal investment in beach nourishment and erosion control should be limited to states and communities with sensible shoreline development policies. We recommend that before any new beach protection project is authorized that the affected state should have a functioning beach management program which implements a policy of strategic retreat from the shoreline and includes such components as a prohibition on new development seaward, an erosion setback line, a prohibition on the construction of new hard structural features such as seawalls and groins, and provision for the relocation of existing structures in erosion-prone areas.

We are seeing a tremendous amount of reconstruction going on in North Carolina and South Carolina in highly exposed areas, and the ink is barely dry on the headlines relating to Hurricane Hugo.

Thirdly, we recommend that the increasing national recognition of the value of wetlands should be more fully reflected in the Army's Civil Works program. This subcommittee, Mr. Chairman, under your leadership, is probing the federal wetlands protection programs and we appreciate the attention this subcommittee has provided to the subject to date.

We would encourage the subcommittee to consider this Water Resources bill as an appropriate vehicle for establishing important wetlands protection goals, at least as they relate to the Army's Civil Works program. We encourage you to consider the establishment of a no net loss goal for the Civil Works program. We have recommendations in our testimony relating to improvements in the Fish and Wildlife Coordination Act to wetlands protection, as it applies to the Corps' Civil Works program.

Mr. Chairman, we feel it is necessary to call the subcommittee's attention to the most critical area of wetlands loss that the country now faces, and that is in coastal Louisiana, where wetlands loss is occurring at the rate of nearly one square mile per week. Last fall, the Senate Environment and Public Works Committee held hearings on legislation relating to the protection of coastal Louisiana. Since that time, probably 20,000 acres of wetlands have been lost in that area. It is a very valuable area from the standpoint of natural resources of national significance.

The delegation has developed legislation that we think is an excellent place to start. The Department of the Army and the Administration had some reservations about it, but we would encourage the subcommittee to use the bill that has been developed by the Louisiana delegation as a point of departure. We look to your leadership to try to encourage resolution of the outstanding disagreements or remaining unresolved issues, so that we can put in place a mechanism that will provide for some timely protection and restoration work in an area of the country where wetland loss is truly alarming.

Another area we would encourage the subcommittee to focus on in this bill has to do with making better use of the existing Corps of Engineers reservoir system. As this system is essentially built out, this is really a national asset of some considerable importance, and it is one where the management of these facilities could probably be upgraded. We have three recommendations in this regard.

First, we recommend that there be authorized a technical advisory committee for each major Corps of Engineers reservoir to provide a forum for technical advice and input, technical and scientific advice and input to the project manager. These reservoirs are complicated ecosystems in their own right, and the management of these facilities could undoubtedly benefit by having more timely and more relevant technical and scientific information at the disposal of the project manager.

Secondly, we recommend that the development of the reservoir operating manuals or their major modification be the subject of a public hearing. Frequently these decisions are made with very little public involvement. We know from some recent controversies in the southeast and southwest and the Dakotas that there is in some cases heightened public interest in how these reservoirs are managed.

Within every multi-purpose project, there is some range of discretion that the corps exercises in the management of these projects on an on-going basis. What we would like from the corps is some fairly simple documentation identifying the range of discretion that the project manager has, and making that available to the public and receiving public comment.

Finally, we are recommending that as a general rule, that recreation be authorized as a subordinate project purpose at corps projects where it is not incompatible with meeting the other statutory objectives for those projects. That can have the effect of providing benefits both for the management of the reservoir itself for recreation, and also relating to the timing and the benefits of releases from the reservoir for recreation downstream.

We also call to the subcommittee's attention the degree of inconsistency between procedures for planning evaluating federal water resources projects and federal agricultural policy relating to farm price supports. A year or two ago, the federal water resources agencies and the Department of Agriculture had reached an agreement relating to the valuation of agricultural commodities for purposes of planning federal water projects. That memorandum of understanding was agreed upon at the inter-agency level, but was set aside by the appropriations committees.

We recommend that with regard to the Corps of Engineers program under this committee's jurisdiction, the corps be allowed to assess the agricultural benefits of its projects in accordance with the MOU it had agreed to with the Department of Agriculture. I will turn briefly to some of the projects where you have received testimony, where you have a completed chief's report, and where there are questions that have been raised. The Passaic River Project, as I mentioned earlier, is one that would have benefited from a comprehensive analysis of a predominantly non-structural plan. We have to observe—I think it is apparent from the record—that this is a project that has a remarkable degree of controversy, very official controversy, in the project area.

Out of five counties that are identified as beneficiaries, three of those county governing boards are on record as being opposed to the project. The proponents have suggested that constructing a tunnel extension to Newark Bay to reduce project-induced flooding would satisfy some objections, but cost an additional $300 million. It does not appear to be economically feasible in its own right, and does have the potential to create environmental problems of its own, including weakening landfill upon which Newark International airport is built.

Mr. **NOWAK**. Mr. Osann, excuse me for interrupting you for just a moment. I have a scheduling conflict, I am supposed to be in a delegation meeting at 11:30. I just wanted to comment before I left and turned the chair over to Mr. Clement, that we had the opportunity to review your testimony. As always, it is very comprehensive, and has a lot of forward-looking suggestions. It is probably time that we moved forward with these, and moved in sequence of what happens not only in the Senate, but in the Farm Bill, and try to coordinate some of these activities.

I want to comment on the Louisiana project that we will be looking at and trying to assess whether or not the Senate is the best of all worlds. We also had the opportunity to go to Louisiana and discuss with some of the local people the variety of wetlands that are in that whole ecosystem, and look at the quality and quantity that is certainly being lost. I think a higher note is the quality of those wetlands and what they provide to this nation, not only in the general area of Louisiana.

We will look forward to again discussing this bill with you as we move through in these hearings, and start to look at specific selections of improvements, not only in this bill, but in the Water Resources bill, and I want to thank you for your very comprehensive look at this legislation and your help in the past.

I certainly want to allow you to continue your full testimony, but I will turn the chair over to Mr. Clement, and return as soon as I can resolve my other obligation.

Mr. **OSANN**. Thank you, Mr. Chairman. We appreciate your interest in these issues.

I would like to just make a few comments regarding the Fort Wayne, Indiana flood control project. As you heard from the earlier testimony, the local supporters have in mind a three-part plan for the area, one involving relocation and park development, which we support. The second is the Federal levees that are at issue in this bill, and the third is the locally-initiated widening of the Maumee River.

We strongly oppose the widening of the Maumee River. Neither the local sponsors nor the Corps, through its permit process, have shown any indication of willingness to do an Environmental Impact Statement on this aspect of the project, and it is not covered in the Environmental Impact Statement on the levee plan that is before the committee.

While we are not objecting to the levee plan, we do feel that if it is authorized in this bill, the authorizing language should make clear that the non-Federal widening of the Maumee River is not subject to the credit provisions against the local cost sharing requirements that were authorized in the 1986 Act.

The chief's report on the Fort Wayne Project indicates that these projects are hydrologically separate, that the widening is not necessary to diminish any induced flows that result from the Federal levee project. The mayor in his testimony this morning, in our view, has overstated the hydrological effects of the river widening. There is technical criticism of this project that has been presented to the corps as well as the environmental criticisms. It simply is not ripe, Mr. Chairman, for implementation.

While we understand the desire of the community to get on with long-deferred flood protection measures, we feel that if that authorization is provided in this bill, it simply ought to break the Maumee River widening out and not allow for credit against the local share. I think it is fairly clear that with the state providing the funding for the Maumee widening effect, allowing that credit would really reduce the purely local share of the Fort Wayne project well below the 25 percent minimum as set forth in the 1986 Act.

One other project I would like to touch on, Mr. Chairman, is the Rio de la Plata Project in Puerto Rico. The corps proposes to excavate nearly six million cubic yards—this is a very significant project—to widen and straighten some eight miles of a river on the north coast of Puerto Rico, Rio de la Plata.

In combination with proposed levees, this channelization is intended to provide protection against the standard project flood, which is a much higher standard of protection than the typical design of the corps flood control project. The levees and the channelization would provide protection in a probable frequency of one in 320 years. Without the channelization, the levees alone would provide protection against a 100 year flood.

We would also call the committee's attention to the substantial land enhancement benefits that are claimed for over 1,200 acres of the existing flood plain, and the intended conversion of this area to urban use, with a residential population projected to reach 36,000. We feel that a reduction in flooding to existing communities can be accomplished at less cost, and with less environmental damage. That is established in the corps' own project documents. We urge that the channelization of Rio de la Plata not be authorized.

The subcommittee has heard testimony on the need to move forward with Montgomery Point Lock and Dam in Arkansas. However, to do so would be premature, in our view. It would prejudge the outcome of environmental economic valuations that are not yet complete. The corps has not even completed a draft environmental impact statement and the Fish and Wildlife Service has not begun its habitat evaluation procedures. We urge that the Montgomery Point Lock and Dam authorization not be included in the bill.

We have a number of comments on provisions in the Administration's bill or the Senate's bill in our testimony. I won't repeat them, Mr. Chairman. I conclude by calling attention to a problem that has developed under the de-authorization provisions of the 1986 Act—actually two problems. The first has to do with mitigation. In the specific instance of the mitigation authorized for the

Harry S. Truman Dam in Missouri, we find that the mitigation activity has not been implemented. It is subject to having the authority lapse under the five-year de-authorization provisions of the 1986 Act. Yet the activity that requires mitigation remains authorized.

We call this to the committee's attention and suggest language that in no case should mitigation authority lapse while the underlying activity requiring mitigation remains authorized.

Finally, the committee I believe has heard testimony from Congressman Jontz from Indiana relating to his experience regarding the de-authorization procedures of Section 1001 of the 1986 Act relating to Big Pine Lake and Lafayette Lake in Indiana. What we have is a situation where the corps has applied study funds from the Wabash Basin comprehensive study on cost updating for projects, and invoked the provisions of section 1001 to suggest that these projects were not subject to the automatic de-authorization procedures because they had construction funds obligated.

We don't believe the corps is right on the interpretation of that law in the first place. If necessary, Mr. Chairman, we urge the committee to include language to specifically de-authorize these two projects, and to make sure that the application of study funds to long-dormant projects cannot be used to subvert the intentions of Title 10 of the 1986 Act.

Thank you for the opportunity to present this testimony, and I am glad to answer any questions the subcommittee may have.

Mr. CLEMENT [assuming Chair]. Do you pronounce your name Osann?

Mr. OSANN. Yes.

Mr. CLEMENT. My first question is, the 1986 Water Resources Development Act effectively de-authorized the unconstructed portions of the Cross-Florida Barge Canal, and called for open preservation of the property. Why does the NWF favor transfer to the State rather than continued Federal ownership?

Mr. OSANN. I believe that concerns have been raised about the propriety under the original terms of the land acquisition for the canal in maintaining it for non-canal purposes. I think it is essentially a problem that in effect is a tidal problem. We want to make sure the lands can remain in public ownership, we want to make sure they are managed for recreation and natural resource purposes. The state has sought a role in the management of this area.

So to reconcile those objectives, I believe the delegation has introduced legislation to make some modifications. We are supporting that effort.

Mr. CLEMENT. The second question on page eight of your testimony, about Mill Creek, Tennessee. What do you know about that project?

Mr. OSANN. I know that the Congressman from that area testified that there is no local sponsor, and he is not recommending authorization at this time. It is a flood control project that involves the use of roller compacted concrete, which has gotten mixed reviews in technical literature.

Mr. CLEMENT. What position are you taking?

Mr. OSANN. We are recommending that it not be authorized for construction at this time.

Mr. CLEMENT. Why?

Mr. **Osann**. Because there appears to be no local sponsor.

Mr. **Clement**. Okay. Well, I'm the Congressman from that district.

Mr. **Osann**. I read your testimony.

Mr. **Clement**. I have proposed three options, rather than one, two dam related and one non-dam related. The fact is that where it is flooded is not where we are going to solve the problem. Many of those people that are being flooded are in the flood plain area. But those people that are not being flooded would be where the dam would be completed. So it is a very, very controversial issue.

That's why I think the people ought to have a right, or a metropolitan government and the people ought to have a right to make a determination between a dam and a non-dam project.

What about another option, even above that, to purchase the houses in the affected area? You mentioned that we ought to reduce any compensation for those that are in the flood plain area, but how about if people build houses in flood plain areas and they don't even know they are in the flood plain area?

Mr. **Osann**. Well, at this point, Mr. Chairman, there really is no good reason for that to occur. The federal flood insurance program has been in place for 20 years, and mapping has been available for some time. The communities are participating and we have in fact requirements that new commercial mortgages and residential mortgages—commercial lending—carry notice that a particular property is in the flood plain. We have some problems with enforcement of those provisions that we are working with the Congress this year, trying to resolve. But there really should not be, if local government is doing its job, a problem with notifying people that they are in the flood plain.

Mr. **Clement**. What about those that built houses more than 20 years ago? Would you grandfather those?

Mr. **Osann**. Sure. That's the environment that we have to contend with and account for under today's circumstances. The point we were making in our testimony is that we ought to be able to draw the line somewhere and not continue, in the future, to have the Federal Government come in and provide up to 75 percent of the cost of a flood control or flood protection project for development that has knowingly taken place in the flood plain.

With regard to the Mill Creek Project in particular, I would say that our recommendation that it not be authorized for construction as recommended by the corps is not a recommendation that we walk away from the problem. It is not a recommendation that there be no federal project in that area. But it appears that the recommendation the corps has made is not locally acceptable, so perhaps we ought to take another shot at it.

Mr. **Clement**. Would you also say that the Corps of Engineers at times is just so regimented, so short-sighted, so blinded, that they say "we are going to do it this way, and this is the option we are going to consider"?

Mr. **Osann**. You won't get an argument from me on that point, Mr. Chairman. I agree.

Mr. **Clement**. What we have been up against is that they would not even consider any other options, other than building a dam. I don't think the Corps of Engineers in their so-called great wisdom has all the answers to these critical problems that affect people and land and homes and farms.

Mr. OSANN. Keep in mind, Mr. Chairman, that we are really in the first few years, and the project in your district has come up in the first few years, of a new relationship between the corps and local sponsors. This is a relationship that was set out under the terms of the 1986 Act. Without the active participation and support—meaningful support in terms of financial contributions of local sponsors—there simply will not be projects. I think that the experience of Mill Creek is a case in point.

Mr. CLEMENT. We are still hoping that there will be a sponsor, but that the corps would be more open about it, rather than being so close-minded and realize that there other options than just building a dam.

Mr. OSANN. They have to be open to a wider range of options, absolutely.

Mr. CLEMENT. But they seem to think, from talking to them, that they have no authority to consider any other options.

Mr. OSANN. They have authority to develop plans for a wide variety of options and to consider alternatives that are beyond their current authority to implement.

Mr. CLEMENT. But they keeping up the cost benefit ratio. There is a wide range of cost benefit ratios when you consider any project, as well, that would still make it very cost effect to look for other options.

Mr. OSANN. The calculations of benefit cost are very important considerations. We are not recommending that that be disregarded. But the corps does have the authority, with the permission of the Secretary of the Army, to recommend a project other than the project that maximizes net economic benefits. They can do that.

In fact, the Fort Wayne Project in this bill is a project that is other than the NED plan that maximizes net benefits.

Mr. CLEMENT. But the corps told me point blank that they had to consider the one that had the best cost benefit ratio.

Mr. OSANN. They have to identify it, certainly.

Mr. CLEMENT. But they couldn't look at any other options, even if it is close. They said it had to be the number one on cost benefit. You don't agree with that?

Mr. OSANN. It simply is not correct. With the approval of the Secretary of the Army, the corps can—and does—recommend projects other than the one that maximizes net benefits and the Fort Wayne Project you have before you is such a circumstance, where they have recommended other than the project which maximizes the net benefit.

Mr. CLEMENT. Mr. Stangeland?

Mr. STANGELAND. Thank you, Mr. Chairman.

Thank you, Mr. Osann, and it might surprise you to know that I agree with a great deal of what you are saying.

Mr. OSANN. It is 1990, and it is Earth Week, and I would have to say I am not surprised, just glad to hear it.

Mr. STANGELAND. Let's just discuss first of all what I consider to be the heart of your testimony and the heart of our concern right now, the question of no net loss. I think there is no question that we want to preserve all the wetlands we have, and that net gain should be an absolute target for the long term.

But as we look at no net loss, will you just define for me your version or your idea of no net loss?

Mr. OSANN. I am not sure I am going to be able to give you a definition that will hold up very well when the transcript of this hearing is reviewed.

Mr. STANGELAND. Try it.

Mr. OSANN. First of all, what we are talking about in the context of this bill is the Army Civil Works program. The projects authorized and carried out by the corps would not result in any net loss of wetlands, and based upon considerations of quality, as well as quantity.

Mr. STANGELAND. Let me put it my way. No net loss as you envision it does not necessarily mean that a wetland is sacrosanct into infinity. There are some times when a wetland will be required to be utilized in some fashion. If that is the case, there has to be a mitigating amount, whether it be one for one, or five for one, or ten for one, to get a comparable wetland. Am I in the ball park there?

Mr. OSANN. Yes, I think that's generally correct, bearing in mind that there is a sequence for going through that kind of decision making process. In the first instance, you are trying to avoid loss of wetlands, and trying to reduce damages to wetlands, and modifying the project accordingly, and so on. Where you have unavoidable losses, where there are water-dependent activities, activities that simply have to be located where they are, where you don't have the ability to avoid the losses, then you get into a mitigation routine.

Mr. STANGELAND. But isn't that the way the system is supposed to work now?

Mr. OSANN. Yes, sure, that's the way it is supposed to work.

Mr. STANGELAND. So we don't disagree there. Then I would ask you to go back and consider your proposal to give the Fish and Wildlife Agency—state and federal—a recommendation that would be binding on the Civil Works project unless they are found to be inconsistent with that law. The chances are they are rarely ever going to be inconsistent with that law.

In effect, what you might be doing is placing an absolute prohibitor on ever developing a wetland.

Mr. OSANN. I don't think that's the case, and that was not actually intended to be the thrust of our testimony. This provision is based, at least in part, upon a provision that Congress has already authorized with regard to the licensing of non-federal hydroelectric power projects by the Federal Energy Regulatory Commission.

In the amendments to the Federal Power Act that were enacted in 1986, Congress elevated the status of the recommendations of State and Federal wildlife agencies under the Coordination Act, and required the FERC to defer to those agencies, placing terms and conditions on hydro projects, except where the FERC made a finding that to do so was inconsistent with its responsibilities under the Federal Power Act.

Mr. STANGELAND. I have dealt with Fish and Wildlife, and I have a great regard for them. I love to fish, and I love to hunt, and I am a national trustee of Ducks Unlimited. So I am not a total zero when it comes to concern in this area. But when you speak of flood control, when you speak of some of the developments, I guess it is a matter of priority and I can appreciate Fish and Wildlife's priority, and I admire it. But sometimes in the real world it is not applicable, or not practical.

I question giving them that kind of veto power. I approve of the process where they make their recommendations and then public hearing occurs in order to approve that priority.

Let's touch briefly on your concern about beach erosion and other unwise flood plain development. I think this subcommittee took a stand, to a certain extent. I am not sure how far we ought to go or should go, but here about three or four years ago, the Great Lakes states came to us because of high water in the Great Lakes, and because beach damage and flooding were occurring in some of the Great Lakes areas. We tried inasmuch as possible to say to those states that did not even have shoreline management practices or zoning in place that unless they stepped into control the problem, we could not help. I guess in the end we authorized about $50 million over five years, none of which has been appropriated or expended, to give them assistance. The water levels have gone down, so the problem has probably gone away for now.

But I am concerned, and of course my philosophy is one where I would like to see the states establish the zones, establish the management policies, based on the parameters we establish for them.

Do we use the carrot and stick method that they either establish the policies or there is no funds when they have a hurricane at Myrtle Beach or something similar? Or do we just have an outright ban on shoreline development unless there is a setback? What do we do?

Mr. OSANN. I think this subcommittee in this bill can establish some new policies, some forward looking policy. You can't right all wrongs that have occurred over the last 100 years. But you can say that from here on out, things will be done differently. What we could do is not authorize tens or hundreds of millions of dollars for beach protection and restoration projects in states and communities that are not doing an adequate job of protecting the shoreline from being exposed to unsound development, taking into account rising sea level and exposure to storm damage.

Otherwise, the Federal Government is on a treadmill of coming in and following behind development that took place. One of the best examples is Ocean City, Maryland. We had a boom in condominium development along the beach front, including right on the beach in a very literal sense, during the 1970s. This was not the turn of the century, when nobody knew any better. This was the 1970s. In fact, the State of Maryland attempted to enforce a setback line and was opposed by local officials, by the mayor and the city, and condominium development took place forward of the dune line, on the beach.

Now, they are asking for a project of tens of millions of dollars, to come in at federal expense, and widen and protect that beach. I imagine that Congress will eventually provide the money. The authorization was provided in the 1986 Act. That's the treadmill you are on under current policy, that local officials can disregard some rather fundamental laws of nature, allow development in areas under their jurisdiction where it cannot be sustained over the long run, in flood plains and coastal high hazard areas. Then, that development being in place, it provides the economic benefits and rationale for a federal flood control project that the Federal Government will fund 50 percent or 75 percent.

Meanwhile, the developers who put the facilities in those places, and perhaps even the public officials who permitted it, are retired and long gone and removed from responsibility. I think it is necessary for the Congress to really draw the line on where and to what extent federal assistance in capital improvements for flood protection and beach nourishment is going to be extended in the future, and that you are going to step off this treadmill.

Mr. STANGELAND. On the surface, I don't disagree with you. I think it is ludicrous and I expect that there are pressures there for economic development, tax base, and the whole nine yards. I guess if the local community wants to do that, then maybe we have the right to tell them to do it, but at your risk, not ours.

Mr. OSANN. Yes, at their risk, and for them not to come back here in five or ten years and expect a multi-million dollar project to protect this development that should not have gone in.

Mr. STANGELAND. We always seem to be at loggerheads with you on various flood control projects and things of that nature. I guess I don't have a specific question, but I just have to say that at least from my point of view what we try to do is balance. I see, and I think local people see, floods as being environmentally damaging.

I think maybe a simpler analogy would be the district I serve, where the Red River runs north. We have a flood plain there that is probably 15, maybe up to 20 miles wide on the Minnesota side, going into Canada, and maybe 25 or 30 miles wide north of us. That's a flood plain. But to ban any future construction, in the end you would end up with a veritable desert of people. They have to live somewhere. That's a little different problem.

But it is a problem. When you pass some kind of law on the federal level, I find too often that it lacks the flexibility of addressing particular problems, particular concerns that are vastly different from one area to another. I guess it is somewhat of a dilemma that we sometimes find ourselves in so we procrastinate and do nothing.

Mr. OSANN. If I could respond to that, first of all, I have no trouble with the concept. If I had five feet of muddy water in my living room, I would consider that to be pretty major damage to my environment. As far as the lack of flexibility in leading to inaction, I think you have the ability to establish some standards in this bill. You always have the ability to make exceptions by statute, where you have weighed the individual circumstances.

This Congress, as is well known, can't bind future Congresses. You can establish some standards for the administration of the program, put local interests on notice, but where a particular case can be made, the circumstances of the local community don't fit the national standards you have laid out in this act, you are always free to change them. You are free to make the exception to provide the assistance.

Mr. STANGELAND. That sounds good in theory, but I guess my concern is that sometimes it takes too long to pass a statute, and I don't say this in any critical way, and I don't want you to feel it that way, but we passed Swampbuster. Swampbuster I felt was well-intentioned legislation. The intent was broadened to a great degree once the law was passed, so that the intent is far greater, and the impact far greater than many of us foresaw initially.

Again, I cite my district, where land has been farmed for 30 or 40 years—maybe wrongfully, but nevertheless it was farmed. Some of the regulations can in effect be taking without due process, taking the land back. But to come now and try and change that—the whole environmental community, Fish and Wildlife, and the outdoorsmen—there is no way legislatively that you can make those exceptions.

In fact it is very difficult for me to come in and sell to this Congress that the law does not apply to the Seventh District of Minnesota, therefore we have to change the law to make an exception for me. The Congress is going to say "Well, wait a minute. If we make an exception for him, then we are going to have to make an exception over here, and here, and here." Do you follow what I am saying?

Mr. OSANN. I follow what you are saying. I was pleased at all the things that you had raised that we were in agreement on. You have identified an area that we are in pretty major disagreement on. I think the difference between the experience you have had in dealing with the perceived problems with Swampbuster and the Flood Control Program and the Beach Erosion Control Program are that these projects are inherently site-specific. There is a national program to deal with those, but they are site-specific. I think you have a better shot at presenting the case in a particular community for the measures that they need for flood damage protection, than the situation you are in now with this general disaffection with the way Swampbuster is being effected in your district.

Mr. STANGELAND. Okay. I think I have covered what I want to cover. You are certainly available, and I am sure you will be watching our progress. Like I say, on some of these things, maybe it's time we faced them. I noticed you mentioned legislation that Senator Breaux has introduced, and I would like to take a look at that. It concerns me, the amount of money we spend on beach nourishment, and yet it is a high priority there. Maybe there is some way to stop that eventually down the road. You talk about 50 percent to 75 percent cost sharing, and it will go on for another 100 years, and continue to go on as we develop more and more.

But I appreciate your testimony, and we will work with you.

Mr. OSANN. Thank you. We look forward to working with the subcommittee, and we are available to answer any further questions or provide suggested language for any of the proposals we have made.

Mr. STANGELAND. I do have one last comment. You might want to comment on it or think about it. I am one who will first admit that in years past we drained far too many wetlands. There is no question about it. Initially when Swampbuster was presented, I asked the author the intent, and he said it was to prevent any more land from being drained for agricultural production. We didn't need any more land, and we shouldn't drain it.

So there is a lot of pressure out there from agricultural interests to farm the whole farm. Some of that land absolutely should not be farmed. But the burden of the cost falls on one person and the benefits accrue to many to leave that wetland there. It accrues to the wildlife, and the wildlife advocates. It accrues to groundwater recharging for the benefit of aquifers and the general public.

So I intend to offer an amendment in the Farm Bill that would mandate that wetlands be included in CRP. I believe the Department of Agriculture now allows some wetland to be put in as CRP, but this would mandate it. That way we would share the cost with that individual person of maintaining that wetland. I am wondering if the National Wildlife Federation has looked at that. I believe you have advocated a substantial increase in the amount of CRP acres that we authorize, at least if not the National Wildlife Federation, some wildlife groups going from $40 million to $80 million.

Mr. Osann. Some of the conservation groups have supported major increases in CRP. I believe we did support the limited extension of the CRP concept to certain wetlands, and all I can say is that we will take a look at your amendment in the spirit in which it is offered.

Mr. Stangeland. I would like to hear from you and see how you feel about it, if it is the proper approach, if we can improve it. I think we have to start seriously thinking about where we are going with wetlands.

The other thing that I am always kind of a stickler on, is agriculture always gets a bad rap for being the big drainers. I am wondering how much we reduced the drainage of wetlands for agriculture since we implemented Swampbuster. I would dare say that we have substantially reduced the loss of wetlands through Swampbuster from further drainage. But I suspect there may be some. I think the loss of wetlands at this point in time comes primarily from urban development and commercial development, as opposed to drainage for farmland purposes.

Mr. Osann. I can't speak to that, because I have not seen any current numbers.

Mr. Stangeland. Thank you very much.

Mr. Clement. Mr. Osann, it is a pleasure having you here today. Thank you very much.

Mr. Osann. Thank you, Mr. Chairman.

[Mr. Osann's prepared statement follows:]

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Testimony of

Edward R. Osann
Director, Water Resources Program
National Wildlife Federation

Regarding

The Water Resources Development Act of 1990

Before the
Subcommittee on Water Resources

Committee on Public Works and Transportation
U. S. House of Representatives

April 24, 1990

Good morning. My name is Edward Osann, and I am Director of the Water Resources Program of the National Wildlife Federation. The Federation is the nation's largest conservation organization with over 5.8 million members and supporters and 51 state and territorial affiliate organizations. The planning, development, and operation of Federal water resource projects directly affect the environmental concerns of our members.

As you know, Mr. Chairman, the National Wildlife Federation supported the enactment of the Water Resources Development Act of 1986. The genius of this legislation was the marriage of policy and projects. The logjam of proposed projects was broken, while policies were established to bring the Civil Works program into step with current needs, environmental sensitivities, and budgetary realities. By contrast, the 1988 Act, a multi-billion dollar authorization in its own right, broke no new ground regarding policy, but rather served to reestablish the biennial cycle of water project authorizations, and reconfirm the application of the reforms contained in the 1986 Act.

We believe that the time has come again to consider some important new policy directions for the Corps of Engineers. While the reforms contained in the 1986 Act have generally worked well, experience to date identifies some limitations that need to be addressed. Simply put, cost sharing does not solve all water resources problems. In our view, there are at least five areas where Congress and the Administration should strengthen the Civil Works program before authorizing additional billions for the Corps. These are:

- Flood plain management;
- Shoreline protection;
- Wetland protection;
- Reservoir management; and
- Agricultural benefits.

In addition, the subcommittee should fashion a similar array of financial and environmental reforms for the Small Watershed Program of the Soil Conservation Service.

Federal investment in flood control should be reduced when state and local governments allow unwise flood plain development.

For decades, local government planners and administrators have known of the functioning of flood plains and the hazards of flood plain development. Since its enactment in 1968, the Federal Flood Insurance Program has produced detailed mapping of the flood hazard areas in the great majority of the flood prone communities across the nation. Yet widespread development of flood plains continues, involving structures that are subject to extensive flood damage, as well as fills that constrict flood flows and raise the flood hazard level to higher elevations. The Federal flood control program is increasingly being called upon to protect not only the riverside communities settled in an earlier era, but the subdivisions and shopping centers of the 70's and 80's, where the risks were known but disregarded.

The cost-sharing requirements enacted in 1986 are clearly insufficient to prevent this needless risk and the attendant damage to riparian resources, especially in hot real estate markets. We recommend that this legislation establish a date certain after which new or substantially reconstructed structures located in the 100-year flood plain may not be included in the benefit base for justifying new Federal flood control projects. Additionally, the presence of such structures and other floodway constrictions should serve to raise the non-Federal share of any project that may still be justified.

A related problem involves flood control structures that allow or encourage additional flood plain development, justifying more costly flood control measures for the induced development. Many projects are justified and sized by the inclusion of flood damage reduction benefits for future floodplain development in the benefit-cost analysis. This bill should direct the Secretary of the Army to eliminate flood damage reduction benefits attributable to new development in flood plains and coastal high hazard areas from the benefit base for justifying new Federal projects.

Federal investment in beach nourishment and erosion control should be limited to states and communities with sensible shoreline development policies.

Beach renourishment projects require repetitive financial expenditures, are temporary in nature, and frequently benefit only a relatively small number of private landowners. Such projects are often used to justify further development of unstable coastal areas that are subject to flooding, erosion, sea level rise, and severe storms. This increases future Federal liability under the flood insurance and disaster assistance programs and jeopardizes additional human lives and property. Over the long term, these costs generally undermine the short term economic benefit which might be derived from increased shoreline development.

In order to respond to these problems, all Federally subsidized beach renourishment projects need to be coupled with a sizeable public benefit, such as increased access to the beach, and a commitment to guide new development away from the shoreline. We recommend that before any new beach protection project is authorized, the affected state must have a functioning beachfront management program which implements a policy of strategic retreat from the shoreline and includes the following components:

(1) a prohibition on new development seaward of an erosion setback line (based on pre-project beach size) of at least 50 times the annual erosion rate;

(2) a prohibition on the construction of new hard structural stabilization projects, such as seawalls and groins, and their reconstruction if damaged by 50% or more; and

(3) provisions for the relocation of existing structures in erosion-prone areas.

The growing national recognition of the value of wetlands should be more fully reflected in the Army Civil Works program.

It has been almost two years since the National Wetlands Policy Forum released its landmark report recommending broad strategies for protecting wetlands, and over one year since President Bush first pledged his commitment to the "No Net Loss" goal. Yet there has been virtually no action toward the actual achievement of this goal to date. At the Federal level, efforts to further the No Net Loss goal have been foundering.

The level of public interest and awareness of our wetland resource problem has never been higher. Citizens are demanding action because --

- Over half of our national wetlands inventory has been lost over the past 200 years;

- Losses of 300,000 to 500,000 acres continue to occur each year, despite increased Federal attention and increased funding for wetlands acquisition in the past few years;

- Some states, such as Ohio, Iowa, and Illinois have lost more than 80% of the state's original wetland base;

- Dramatic declines in North American waterfowl populations are but one indicator of the great value we continue to squander by delaying wetlands protection.

The statutory establishment of the no net loss goal is the key to protecting America's remaining wetlands. We must stop the hemorrhage of wetland losses by establishing this clear goal for the Army Civil Works program in this bill. No net loss of wetlands should be the initial standard for the program, while net gain of wetlands should be the target for the long term. A wetlands action plan should incorporate long-range measures to accomplish these goals, as well as those associated with the North American Waterfowl Management Plan.

A second major step to achieve the no net loss goal would be a modification of the Fish and Wildlife Coordination Act to make the recommendations of state and Federal fish and wildlife agencies binding upon the Civil Works program, unless and to the extent such recommendations are found to be inconsistent with other applicable law. Too often the Coordination Act report of the wildlife agencies sets off an interagency bargaining process that fails to fully protect the wetland resources at risk. We recommend that this bill remedy this longstanding deficiency in the Coordination Act, and make the Army Civil Works program a vehicle for positive protection of wetland resources.

We must also call the subcommittee's attention to that part of the country where the loss of wetlands is most acute: **coastal Louisiana**. The rate of coastal wetland loss is nearly one square mile per week. Nationally important natural resources are being jeopardized with the loss of habitat that supports 30% of the country's annual commercial harvest of fish and shellfish, 40% of the country's annual wild harvest of fur and hides, and important wintering areas for the migratory birds of the Mississippi Flyway.

Federal water resource development projects have trained the flow of the Mississippi River to deliver the fresh water and sediment needed for marsh maintenance, salt water repulsion, and beach nourishment into the deep waters of the Gulf of Mexico, denying these vital benefits to coastal areas. Federally permitted activities in the coastal area have drained and filled thousands of acres of wetlands and exposed vast additional acreage to the devastating forces of salinity intrusion through navigation and pipeline canals.

Against this backdrop, prompt enactment of Federal legislation is very important. A new Federal-state initiative to restore coastal wetlands should be included in this bill. S. 1731, introduced by Senator Breaux, is the product of hearings and negotiations on an earlier bill, and would be an excellent place for the subcommittee to start in its deliberations on this issue. The bill provides a mechanism for careful planning, timely implementation, and significant financial participation by the state. Moreover, this bill calls upon the state to work responsibly to protect its remaining coastal wetlands from destruction due to development activities. The people of Louisiana, notwithstanding a serious and persistent economic recession, have voted overwhelmingly to contribute state funds to a coordinated Federal-state effort. The 1990 Water Resources Bill should contain a workable program to match this enthusiasm and stem the nation's most acute loss of outstanding wetland resources.

The extensive reservoir system built and operated by the Corps is a national asset whose management should be upgraded.

Large reservoirs are dynamic ecosystems in their own right, with complex interactions between inflows, bottom sediments, temperatures, nutrients, and discharges affecting the quantity and quality of water available for fish and wildlife and other project purposes. Although the Corps collects much data in the course of its reservoir operations, much more remains to be learned that may offer significant opportunities for additional public benefits. We recommend that this legislation provide for the establishment of a technical advisory committee for each large reservoir. In our judgment, many qualified people would be willing to serve without pay, if a structure were presented to expand the body of knowledge relevant to the management of large reservoirs.

Recent controversies over reservoir operations in Georgia and South Dakota have highlighted an emerging need for greater public involvement in the management of Corps reservoirs. Most reservoirs are multi-purpose structures. The balancing of competing uses within the mandates of the statutory purposes of the project is a process that has traditionally gone on with little public input. We recommend that this legislation include a requirement that the development or revision of reservoir operating manuals be the subject of a public hearing, with appropriate background materials relating to proposed management decisions made available in advance. Within the framework of statutes, regulations, and contracts governing the operation of any reservoir, there is always some choice and discretion available to the project manager. The public should be apprised of the range of these choices, and have the opportunity to offer their own views.

Many older Corps projects were authorized before fish, wildlife, and recreation benefits were identified and incorporated into the planning reports upon which their authorization was based. We recommend that the Secretary of the Army be authorized to manage all existing dams and reservoirs for recreation and fish and wildlife purposes to the extent that such management does not seriously impair other project purposes, and, if necessary, to modify the terms of project repayment if reservoir storage is reallocated. Often, substantial public benefits can be achieved with minimal impact on original project purposes.

Planning for new Corps projects should be consistent with national farm policy.

Many Corps projects are intended to provide benefits to agriculture, such as reduced flood damage to crops. The commodity prices used to calculate these benefits, however, are often biased toward overvaluation because of the impact of the Government's own farm price support programs. These programs are a cost to the government, and do not fairly belong on the benefit side of the Corps' benefit-cost calculations.

Flood control projects can and do stimulate agricultural output. Unfortunately, when the crops produced are those chronically in surplus, such as cotton or corn, increased production can have unintended nationwide effects on the carryover of program crops, on crop prices, or on the rate of set-aside acreage. The use of more accurate commodity prices in benefit-cost analyses will help to better identify those water resources projects that will actually produce a net increase in benefits to the nation.

This legislation should direct the Secretary to use subsidy-free prices computed by the Department of Agriculture in evaluating agricultural benefits of proposed Corps projects. The Corps and the Department of Agriculture have already agreed to such a procedure, but have been barred by the Appropriations Committees from putting it into effect.

That portion of the Small Watershed Program of the Soil Conservation Service (SCS) within this committee's jurisdiction could benefit from many of the reforms enacted for the Corps.

As with other water resource development projects, SCS Small Watershed Projects often involve modification of environmentally sensitive areas. They alter the way wildlife is distributed and affect other important environmental factors, such as water quality and land use.

The Administration has recommended changes in SCS cost-sharing requirements to conform more closely to those established for the Corps program. We support the Administration's recommendations, but believe that the reforms should go further. We urge that this legislation include provisions to --

- deauthorize dormant SCS projects or unbuilt portions of projects;
- place greater emphasis on land treatment and other predominantly non-structural measures;
- encourage greater use of the Small Watershed Program in non-point pollution control programs;
- improve the efficiency and quality of the environmental reviews given to individual projects.

The National Watershed Conference convened last year by the National Association of Conservation Districts supported these and other measures to improve the program.

OBJECTIONABLE PROJECTS AND PROVISIONS

Passaic River, NJ. The Passaic River Project is a nine hundred million dollar experiment to reduce flooding in the basin by passing flood flows through a 35-foot diameter tunnel. It would destroy wetlands and parks and is likely to threaten the quality and quantity of upper basin groundwater. The uncertainties and controversies surrounding this expensive plan mean that neither the State nor any other entity is likely to accept the expensive role of local sponsor.

Proponents have suggested constructing a tunnel extension to Newark Bay to reduce project-induced flooding in the lower basin. This would satisfy one objection to the Corps project, but, the $300 million cost of this fix will exceed the benefits, and could disrupt the ecosystem of Newark Bay and weaken the land fill on which Newark Airport is built.

The State of New Jersey has appropriated funds to buy out the properties most in danger of flooding. The Corps should be directed to formulate a mix of structural and nonstructural measures to reduce the remaining potential flood damage in an environmentally benign and economically efficient manner.

Fort Wayne, Indiana. Local sponsors propose to widen four miles of the Maumee River in connection with the Corps project, although this activity has not been evaluated in the Corps' Environmental Impact Statement (EIS). In order to meet the requirements of the National Environmental Policy Act, the Corps must incorporate an analysis of the environmental effects of the locally-sponsored Maumee River widening in its "completed" EIS on the proposed Federally-authorized levees. Furthermore, we believe that this activity is so clearly unacceptable that any authorizing legislation must specifically bar the crediting of the costs of the widening to the non-Federal share of the project. The Maumee River widening would remove four miles of riparian habitat and inflict more environmental damage than all the other structural measures combined.

Mill Creek, TN. The proposed flood control project at Mill Creek, TN, has no local sponsor, indicating a lack of confidence in the project's effectiveness. The assumed protection of the proposed dam would encourage further development of the flood plain. Large floods could breach the dam, resulting in larger losses of property and life than would occur to existing properties without the project.

Rio De La Plata, Puerto Rico. The Corps proposes to excavate nearly 6 million cubic yards to widen and straighten some 8 miles of the Rio de la Plata. In combination with proposed levees, this channelization is intended to provide protection against the Standard Project Flood, determined to have a probable frequency of 1 in 320 years. Without the channelization, the levees would provide protection against the 100-year flood. It should also be noted that substantial land enhancement benefits are claimed for 1238 acres of the existing flood plain that would be converted for urban use, with a residential population projected to reach 36,350. Since reduction in flooding to existing communities can be accomplished at less cost and with less environmental damage, we urge that the channelization of Rio de la Plata not be authorized.

Martin County, FL and **Myrtle Beach, SC.** The proposed beach renourishment projects at Martin County, FL and Myrtle Beach, SC should not be authorized because they will require repeated maintenance at Federal expense. This would be the sixth renourishment project in 17 years for Martin County, while for Myrtle Beach this would be the third renourishment project in five years. The induced shoreline development will also increase future Federal flood insurance liability and potential disaster relief payments.

Despite one of the most progressive structural retreat policies in the nation, lack of enforcement by the South Carolina Coastal Commission is allowing structures damaged or destroyed by Hurricane Hugo to be replaced and rebuilt in the same location. Beach renourishment will facilitate continued development of the unstable coastal areas that are subject to flooding, erosion, sea level rise and severe storms. Both the Martin County EIS and the Myrtle Beach Environmental Assessment are quite clear in stating that beach renourishment will encourage continued development of the coastal area.

The Subcommittee should authorize beach protection projects only in communities that enforce a shoreline development policy, including erosion setbacks which factor in predicted sea level rise, moratoria on shoreline development, and incentives for moving existing structures away from the shore.

We ask the committee not to authorize the proposed deepening of **Bayou La Batre, AL**, but instead, authorize a study to monitor the effects of dredge spoil disposal in this area. In 1989, the Environmental Protection Agency, National Marine Fisheries Service, U.S. Fish and Wildlife Service, and Alabama Department of Environmental Management established guidelines for a monitoring study to be conducted over a three year period to provide additional site specific information regarding the disposal of dredged material on Isle Aux Herbes and within Mississippi Sound. This study will determine the long term impacts of dredge spoil disposal on benthic organisms, the local shrimp populations on which the fishing industry depends, and the habitat value of marshes created from dredged materials.

The hiatus during the study period will enable the Corps to reevaluate the economic benefits claimed for the project attributable to commercial fishing. Because access is open to anyone to harvest butterfish and shrimp, potential profits to fish harvesters will be quickly dissipated as average catches per unit of effort fall while the number or size of fishing vessels increases. Moreover, increased catches will lead to lower prices and further decrease the anticipated benefits. While the target species of this proposed project are not yet threatened, overinvestment in the fishing industry worldwide is causing severe depletion of many fish species.

Authorization of land acquisition for the proposed **Montgomery Point Lock and Dam, AR,** before completion of the final planning report/EIS would be inconsistent with the policy of this subcommittee and the Administration. The Corps has not even completed a *draft* EIS and the U.S. Fish and Wildlife Service has not begun its Habitat Evaluation Procedures (HEP). A premature authorization of the project at this time would prejudge the outcome of these economic and environmental evaluations.

Proposed 100-year level of flood protection. Section 305 of the Senate bill would set the recommended level of protection at 100 years for Corps flood control or storm damage prevention projects. This proposal does not make economic sense. It would make the nation worse off wherever it resulted in a larger project than would be recommended under the current standard of maximizing net economic benefits. For example, assuming that net benefits would be maximized at the 40-year level of protection, and that the incremental cost of raising protection to the 100-year level is $200 million, and the incremental benefits are only $110 million, the nation would be $90 million worse off by overbuilding under the proposed standard. Benefits might also be maximized for levels of protection on some flood plains greater or less than 100 years. Only by chance would benefits be maximized at the 100-year level.

It is argued that there is an inconsistency between the Federal Emergency Management Agency's 100-year level of protection "standard" and the Corps' maximization of net benefits standard. In fact, the policies of these two agencies are consistent. FEMA's standard was set to limit taxpayer subsidies to shortsighted floodplain development. The Corps' present standard also limits uneconomic taxpayer expenditures that subsidize future flood plain development. We urge the subcommittee not to adopt the proposed arbitrary standard.

The proposed **Military Benefit Credit** for harbor and channel projects in section 306 of the Senate bill will impair the cost-sharing requirements of Public Law 99-662 and should not be included in this legislation. The inclusion of unsubstantiated and unquantifiable benefits would arbitrarily deflate the non-Federal share of navigation improvements. Military benefits are already subsumed within the broad Federal interest that justifies the Federal contribution of 50 to 75% to virtually every navigation project which involves the military. If this provision remains in the bill, we suggest that the entire provision be made applicable only when and to the extent the share of the project costs allocated to military benefits exceeds the Federal share of the project under current law.

GENERAL PROVISIONS SUPPORTED

We support the increase in **Harbor User Fees** in section 13 of the Administration bill that will be introduced as a separate bill and referred to the Finance Committee. The Administration's proposed increase from $0.40 to $1.25 per $1,000 value of goods loaded or unloaded will generate nearly $300 million per year in additional revenue and will shift the financial burden of operation and maintenance of coastal channels and harbors from the Federal government to the users. We note, however, that user fees based upon vessel size and specific dredging costs would provide greater efficiencies than *ad valorem* fees, and we urge the subcommittee to consider such an alternative approach.

The Federation applauds the Administration's decision to withdraw the proposed **Galveston Bay Area Navigation Project** from consideration in this bill. We ask the Committee to defer future consideration for this project until a supplemental EIS is completed and economic justifications clarified.

We support section 203 of the Senate bill that would authorize the Corps to formulate and evaluate plans to restore the **Lower Truckee River** in consultation with the Pyramid Lake Indian Tribe and the Secretary of the Interior. The removal of spawning grounds by the channelization of the Lower Truckee River and diversions for irrigation has directly contributed to the endangerment of the cui-ui and Lahontan cutthroat trout. River restoration will assist the recovery efforts for these species.

We support the Administration's proposed expansion of cost-sharing into the areas of **Planning Assistance to States** (Sec. 11) and **Flood Plain Management Services** (Sec. 12). These provisions are a logical outgrowth of the cost-sharing provisions contained in the 1986 Act. Just as cost-sharing has reduced the number and size of marginal projects constructed, cost-sharing of feasibility studies will reduce the number of pie-in-the-sky study proposals which consume time, manpower, and scarce Federal funds.

Extension and increase in authorization of Sec. 1135. We support the proposed five-year extension of section 1135 of the 1986 Act which allows the Secretary to modify existing projects to improve the quality of the environment. It has become evident that the $25 million originally authorized is not sufficient to respond to the great interest in this section by project sponsors. The cost ceiling should be increased to $70 million, subject to provisos that such modifications be associated primarily with improvements to the quality of the environment, recreation, and fish and wildlife habitat. Modifications under this section should not be used to expand other project purposes.

CLARIFICATIONS NEEDED IN THE 1986 WATER RESOURCES DEVELOPMENT ACT

Federal share of Operation and Maintenance costs for Fish and Wildlife Enhancement

Section 906(e) of the 1986 Act provides for installation of certain fish and wildlife enhancement measures to be 100% Federally funded, such as measures to benefit Federally listed endangered species, National Wildlife Refuges, or anadromous fish. When the benefits of enhancement are not national, 25% of first costs must be provided by non-Federal interests.

The non-Federal share of operation, maintenance, and replacement (OM & R) costs for enhancement is also specified as 25%, without addressing those measures deemed to provide national enhancement benefits. Corps policy guidance states that the non-Federal share of all OM & R costs will be 25%. We recommend that the provision for full Federal funding of national enhancement activities be included in this bill.

User contributions for Inland Waterway feasibility studies

The 1986 Act carried new cost-sharing requirements for all new Corps feasibility studies -- all, that is, except for feasibility studies for inland waterway projects. The Corps now contends that such studies must have local sponsors, while supporters of such projects as the Lake Erie-Ohio River Canal contend that such studies should be 100% Federally funded. The bill should clarify that such complex and controversial studies are not to be performed at full Federal expense. If local interests are unwilling to contribute, the 50% non-Federal share should be required to come out of the Inland Waterways Trust Fund.

Ability to pay

The subcommittee has been asked to relax the flood control cost-sharing requirements under the "ability to pay" provision of section 103(m) of the 1986 Act. The Corps interim final rule at 33 CFR Part 241 requires that the normal non-federal cost share of between 25% and 50% be reduced by an eligibility factor based on state and area relative income. The adjusted percentage must be at least 25% of the lesser of the estimated costs or benefits.

The fact that no local cooperation agreements (LCA) have been reached for new Mississippi River and Tributaries projects does not indicate that cost-sharing is not working as intended. As former Senator Stafford argued during the debate on this provision, "Even the poorest communities should be able to find a quarter to invest in order to get $1 or more in return." In some cases, the intended local beneficiaries may be hesitant to commit to pay 25% of the costs because they believe that the Corps' benefit estimate is inflated. If so, these projects fail the market test established by cost-sharing and should not be built.

The environmental benefits of cost-sharing for flood control are most pronounced in the Lower Mississippi Valley, where so many authorized projects are environmentally damaging yet economically marginal. We strongly object to any weakening of the cost-sharing standards enacted in 1986.

Deauthorizations

Harry S Truman Dam, MO Mitigation. The Subcommittee should not allow mitigation authorization for the Harry S Truman Dam to sunset. The authorization for mitigation at Truman Dam included acquisition of up to 1000 acres to mitigate damages to the downstream channel caused by peak power generation using water from Lake of the Ozarks back pumped into Truman Reservoir during off peak hours. Even though back pumping has been deferred indefinitely because of large fish losses during testing, current peaking operations are causing damage to the downstream channel similar to what would be caused by pump storage operations. Therefore, the authorized mitigation should be implemented immediately. In no case should mitigation authority lapse while the underlying activity requiring mitigation remains authorized.

We would also like to bring to the subcommittee's attention the District Engineer's failure to render a Record of Decision on the 1985 Draft Environmental Assessment, "Future Direction of Hydropower," regarding operation of the Truman powerplant. The Draft EA predicted significant adverse environmental effects from peaking operations, requiring the project to cease peaking operations until a full EIS on dam operations is complete. Environmental damages are continuing while the Corps remains out of compliance with the National Environmental Policy Act.

Ten-year sunset for the Big Pine Lake and Lafayette Lake Projects, IN. Section 1001(b)(1) of the 1986 Act provided for automatic deauthorization of projects that have not had funds obligated for construction during the preceding 10 full fiscal years. A list of unconstructed projects, or unconstructed elements, is to be transmitted to Congress by the Secretary. Because no funds have been obligated on the Big Pine and Lafayette Lake projects since 1977 and these two projects were on a list of dormant projects submitted to Congress in November 1987, these projects should have been deauthorized without further Congressional action. Nevertheless, on February 5th Secretary Page decided that the projects were ineligible for deauthorization because during FY 1989 expenditures of $2,271 were purportedly incurred for the purpose of updating their construction costs and benefits in the course of the Wabash Basin Comprehensive Study. After December 31, 1989, the costs of this simple calculation were assigned to planning and design costs. This keeps both projects alive, projects no one believes will ever be completed. It is questionable whether such study expenditures can constitute the kind of construction obligations that the 1986 Act contemplated.

We urge the subcommittee to specifically deauthorize these two projects. Moreover, the language in Sec. 1001(b) should be tightened so that projects that have been dead or dormant for over ten years cannot be resurrected on the the basis of specious technicalities.

Deauthorization of the Cross Florida Barge Canal. The provisions set out in this bill to deauthorize the Cross Florida Barge Canal represent a wide consensus of conservation groups, the State, and the Congressional delegation. Federal lands would be transferred to the State on the condition that they be managed for public recreation. Small isolated parcels could be sold only after careful public and agency review. We urge the Subcommittee to accept this solution to ending Federal involvement with this project.

Thank you for the opportunity to present these views.

Mr. CLEMENT. Our next witness is Mr. Edward A. Burkhardt, President of Wisconsin Central Ltd. If you will come forward, please, and present your testimony.

KENTUCKY COAL—ROUTING

TESTIMONY OF EDWARD A. BURKHARDT, PRESIDENT, WISCONSIN CENTRAL LTD., ROSEMONT, IL

Mr. BURKHARDT. Thank you, Mr. Chairman.

Very briefly, Wisconsin Central is the nation's largest regional railroad. By a regional railroad, we mean a spinoff from one of the large national systems. It went into business in 1987, serves the states of Wisconsin, Minnesota, Michigan and Illinois with about 2,000 miles of railroad.

The committee has my written testimony, so I will not go over that word for word.

Mr. CLEMENT. Your testimony, Mr. Burkhardt, will be admitted into the record. I might say to you that I used to work with the railroads a lot. I was the Chairman of the Tennessee Public Service Commission in the State of Tennessee. And I served on the National Railroad Committee and enjoyed it very much.

Mr. BURKHARDT. Well, you are somewhat familiar then with the issues that we are raising.

I don't claim any particular expertise on a long history of rivers and harbors appropriations. But we have a particular case that I think brings to light an economic problem that frequently parallels and accompanies large appropriations for these types of public works. In the upper peninsula of Michigan, we operate a 78-mile branch line with one customer on it, a copper mine. The previous owner of our railroad, the Soo Line, had discontinued service on that branch, not legally, but by using a mechanism called a surcharge, where they surcharged every car several thousand dollars. That had the effect of drying up what little business remained.

We approached this problem from a completely different angle and felt we could develop a copper mine into a customer large enough to make this branch line viable. The first move that we put on the line was a movement of iron pyrite to the copper mine, which gets us roughly halfway toward economic viability for that branch. We consider it a major step forward.

The second effort we made was to convert the coal movement going to the copper mine, which was Kentucky coal, to an all-rail routing. That coal had been moving via rail to the ports on Lake Erie, and then by vessel to the port at Ontonagon, Michigan, about 19 miles away from the copper mine, then trucked to the mine. We felt we could put together a package that would be just as good, and in fact we were told that we did.

However, there is concern in the area locally about drying up the tonnage that is handled through the port of Ontonagon and whether the public funding that is authorized each year to keep the port dredged would dry up along with the business.

The Port of Ontonagan is a river mouth, the harbor naturally tends to silt in every year and requires continual dredging every year by the Corps of Engineers at great expense. We calculated that expense based on the request of the appropriation for this year. We divided by the tonnage handled in the most recent year available, which resulted in a subsidy of $12.12 per ton on the coal.

We compare that with the fact that we had quoted a rate of $6 per ton to haul the coal all the way from Chicago, which is a point, roughly for ratemaking purposes, about equidistant from the mine as the Lake Erie port is. I guess you could draw the conclusion that the committee would make a better economic decision in giving us the $6 per ton, thereby saving over $6 per ton in terms of an appropriation, and we could haul the coal up there for nothing.

I think while we have this specific problem that the particular problem raises the issue of economic recovery of costs in all of the Great Lakes ports and on the river systems as well. If a project is economically justified, it is pretty difficult, as a citizen, to come out and say that we oppose it. But where a project not only is not economically justified, but threatens the infrastructure of another form of transportation, I think it is worth serious analysis, and hopefully the conclusion would be reached that this is not a proper expenditure of public monies.

Basically that sums up our situation. The branch line today with the iron pyrite moving on it, but not the coal, is the worst of all worlds for us, because it is not viable, it does not bring in an economic return, yet it has some business on it, which would make it difficult to abandon the line. Inevitably, if we can't develop business that will make the line self-sustaining, we are in a position like so many miles of railroad in pressing forward for an ultimate abandonment.

I would consider this a great loss for the area we serve as well as for ourselves. So I hope the committee will consider the other types of influences that such a large expenditure can create.

I was interested in the previous testimony concerning ecological results, too, and while I am not particularly qualified in this area, it certainly is obvious that large-scale dredging of a Great Lakes river mouth does create ecological damages, and I don't know whether any consideration is given to that in terms of justification of the project.

That basically concludes my comments, but I would be very pleased to answer any questions.

Mr. CLEMENT. Thank you, Mr. Burkhardt. Is there a means by which you can discontinue service on the White Pine branch if it continues to be uneconomical?

Mr. BURKHARDT. Yes. We can file for an abandonment with the Interstate Commerce Commission based on the ICC's current policy on these lines. That abandonment would occur within six or eight months after our filing.

Mr. CLEMENT. You do not want to do that?

Mr. BURKHARDT. No, we don't. That would be a last resort. It is an admission of commercial failure in our industry.

Mr. CLEMENT. What exactly do you want to do?

Mr. BURKHARDT. We would like to not have the harbor at Ontonagan continue to be improved and dredged at federal expense.

Mr. CLEMENT. So what you are saying is, I know the corps has some money in there—over $2 million in improvements?

Mr. BURKHARDT. That's right.

Mr. CLEMENT. And you would prefer for them to not be approved for that project?

Mr. BURKHARDT. We would like to earmark that money for deficit reduction.

Mr. CLEMENT. Okay, I understand. Mr. Stangeland?

Mr. STANGELAND. Thank you, Mr. Chairman.

Thank you, Mr. Burkhardt. I think what I would recommend in fairness to you is that you ought to make an appointment to visit with the appropriations committee. It is not required that we authorize this improvement. The project is there, the harbor is there, and they go to appropriations for the money to do the work.

I think your point is that when we do harbor or inland waterways improvements, we ought to look at the impact on the other modes of transportation. I think you have a good point. It is one of the points we enjoy hearing especially when we would like to get railroads under the jurisdiction of Public Works, not Energy and Commerce, so that we could have all modes of transportation here. We could then look at the interrelationship and the effect of what we do, one to the other.

Unfortunately, we don't have that. So Energy has railroads, and we are concerned about rivers, harbors and waterway transportation. I know oftentimes when we do look at projects on the waterways, railroads come in and testify in opposition if they can provide the service as cheaply or if it is going to cause reduced service for the railroads.

But on this one, I would urge you to contact the appropriations subcommittee and make an appointment to sit and visit with them about your concerns.

Mr. BURKHARDT. Thank you. My statement has been filed with that committee, and I do understand this two-stage process, but I would comment that it seems to me that the basic policy is and should be made in this committee on the approach to these types of issues. Appropriations is another way to approach the problem.

Mr. STANGELAND. We set the policy, and they fund whatever policy we set, that's true. That's why I say, we should have railroads under the jurisdiction of this committee, so that when we improve a harbor somewhere, or improve a water system, we can examine what impact that will have on other modes of transportation, not only railroads, but highways, and the whole nine yards.

Thank you very much.

Mr. BURKHARDT. Thank you.

Mr. CLEMENT. Thank you, Mr. Burkhardt, for your statement today.

[Mr. Burkhardt's prepared statement follows:]

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TESTIMONY OF EDWARD A. BURKHARDT

PRESIDENT

WISCONSIN CENTRAL LTD.

FOR RECORD OF HEARINGS BEFORE THE

HOUSE PUBLIC WORKS AND TRANSPORTATION COMMITTEE

SUBCOMMITTEE ON WATER RESOURCES

APRIL 24, 1990

MY NAME IS EDWARD A. BURKHARDT. I AM PRESIDENT OF WISCONSIN CENTRAL LTD., A REGIONAL RAILROAD OPERATING IN THE STATES OF MICHIGAN, MINNESOTA, WISCONSIN AND ILLINOIS AND IN THE PROVINCE OF ONTARIO. WISCONSIN CENTRAL OPERATES OVER 2,062 MILES OF RAILROAD AND SERVES APPROXIMATELY 600 ON-LINE SHIPPERS.

WISCONSIN CENTRAL COMMENCED OPERATIONS IN 1987, AFTER PURCHASING THE PROPERTY FROM THE SOO LINE, A LARGE CLASS I CARRIER. WISCONSIN CENTRAL IS A LIGHT DENSITY RAILROAD, WITH AVERAGE REVENUES OF LESS THAN $50,000 PER MILE COMPARED WITH A CLASS I AVERAGE OF $221,000 PER MILE. THE SOO COULD NOT OPERATE THESE LINES PROFITABLY; HENCE THEIR DECISION TO SELL.

IN THE TWO YEARS SINCE COMMENCING OPERATIONS, WISCONSIN CENTRAL HAS INCREASED AND IMPROVED SERVICE AND LOCOMOTIVES AND CAR EQUIPMENT AND INVESTED APPROXIMATELY $22,000,000 IN TRACK IMPROVEMENTS. WE WERE SELECTED AS THE NATION'S BEST CUSTOMER SERVICE RAILROAD IN 1989 IN A POLL OF OVER 5,000 FREIGHT SHIPPERS CONDUCTED BY DISTRIBUTION MAGAZINE. OUR BUSINESS HAS INCREASED OVER 23% OVER THE PAST TWO YEARS AS A RESULT OF OUR EFFORTS TO SERVE OUR CUSTOMERS BETTER.

DURING THE SAME PERIOD OUR EMPLOYMENT INCREASED 13% TO A PRESENT LEVEL OF APPROXIMATELY 900 PEOPLE. WE PRIDE OURSELVES ON HAVING A HIGHLY PRODUCTIVE, CUSTOMER ORIENTED WORK FORCE WITH A HIGH DEGREE OF JOB SECURITY.

A COPY OF OUR SYSTEM MAP IS ATTACHED AS AN EXHIBIT.

WISCONSIN CENTRAL WOULD LIKE TO GO ON RECORD IN SPECIFIC OPPOSITION TO THE PROPOSED $2,850,000 APPROPRIATION FOR DREDGING AND OTHER IMPROVEMENTS TO ONTONAGON HARBOR, MICHIGAN. FURTHER, WE PROPOSE NO RIVER OR HARBOR PROJECTS REQUIRING PUBLIC FUNDS BE AUTHORIZED, WHERE PRIVATELY FINANCED COMPETITIVE MODES OF TRANSPORATION WILL BE ADVERSELY AFFECTED WITHOUT AN OBJECTIVELY CONDUCTED STUDY SHOWING PUBLIC BENEFITS IN EXCESS OF PUBLIC COSTS. FINALLY, WE PROPOSE THAT THE COST OF SUCH PROJECTS BE RECOVERED IN ITS ENTIRETY BY PROJECT-SPECIFIC USER FEES.

WISCONSIN CENTRAL OPERATES A 78-MILE BRANCH LINE TERMINATING AT WHITE PINE, MICHIGAN, ABOUT 19 MILES BY HIGHWAY FROM ONTONAGON. THE ONLY CUSTOMER ON THE RAIL LINE IS A LARGE COPPER MINE AT WHITE PINE.

THE SOO LINE HAD DISCONTINUED SERVICE TO WHITE PINE FOR SEVERAL YEARS PRIOR TO THE SALE OF THE LINE TO WISCONSIN CENTRAL BY ESTABLISHING A PROHIBITIVE FREIGHT RATE SURCHARGE ON ALL CARS HANDLED. THERE IS SUFFICIENT RAW MATERIAL TRAFFIC MOVING TO WHITE PINE TO MAKE THIS LINE ECONOMICALLY VIABLE, AND WISCONSIN CENTRAL'S POLICY HAS BEEN TO CONVERT THE RAW MATERIAL MOVEMENTS TO RAIL THROUGH SERVICE AND PRICING COMPETITION.

WISCONSIN CENTRAL WAS SUCCESSFUL IN CONVERTING THE MOVEMENT OF 56,700 TONS OF IRON PYRITES IN 1989 TO RAIL, BUT THIS IS NOT SUFFICIENT TO MAKE THE WHITE PINE BRANCH VIABLE. THE OTHER MOVEMENT OF RAW MATERIALS IS COAL, PRESENTLY DELIVERED BY LAKE VESSEL TO ONTONAGON AND TRUCKED TO WHITE PINE. IN 1989 WE QUOTED A RATE THE SHIPPER TOLD US WAS EQUAL TO DELIVERED TOTAL COSTS BY WATER, BUT THE SHIPPER INSISTED ON A BETTER RATE. OUR ECONOMICS WOULD NOT PERMIT A FURTHER RATE REDUCTION.

ONTONAGON HARBOR HANDLED 235,198 TONS OF CARGO IN 1988, THE LAST YEAR FOR WHICH THE ARMY CORP OF ENGINEERS HAS PUBLISHED STATISTICS, VIRTUALLY ALL BEING INBOUND COAL. THE PROPOSED IMPROVEMENTS COSTING $2,850,000 RESULT IN A $12.12 PER TON SUBSIDY, ASSUMING THE SAME ANNUAL TONS HANDLED. WISCONSIN CENTRAL'S PROPOSED RATE FOR HANDLING THIS COAL 575 MILES FROM CHICAGO, STOCKPILING, AND DELIVERING AS REQUIRED TO THE COPPER COMPANY IS $6.00 PER TON. WE CAME CLOSE TO PUTTING THIS MOVEMENT ON THE RAILS EVEN WITH THE FEDERAL SUBSIDY IN PLACE, BUT FAILED BECAUSE WE COULD NOT COME UP WITH A "BETTER" DELIVERED COST.

ABSENT THE COAL, WE ARE STUCK WITH A MONEY-LOSING BRANCH LINE. THE INEVITABLE RESULT IS AN ABANDONMENT, EVEN IN THIS CASE WHERE THE RAIL OPTION IS THE MOST COST-EFFECTIVE.

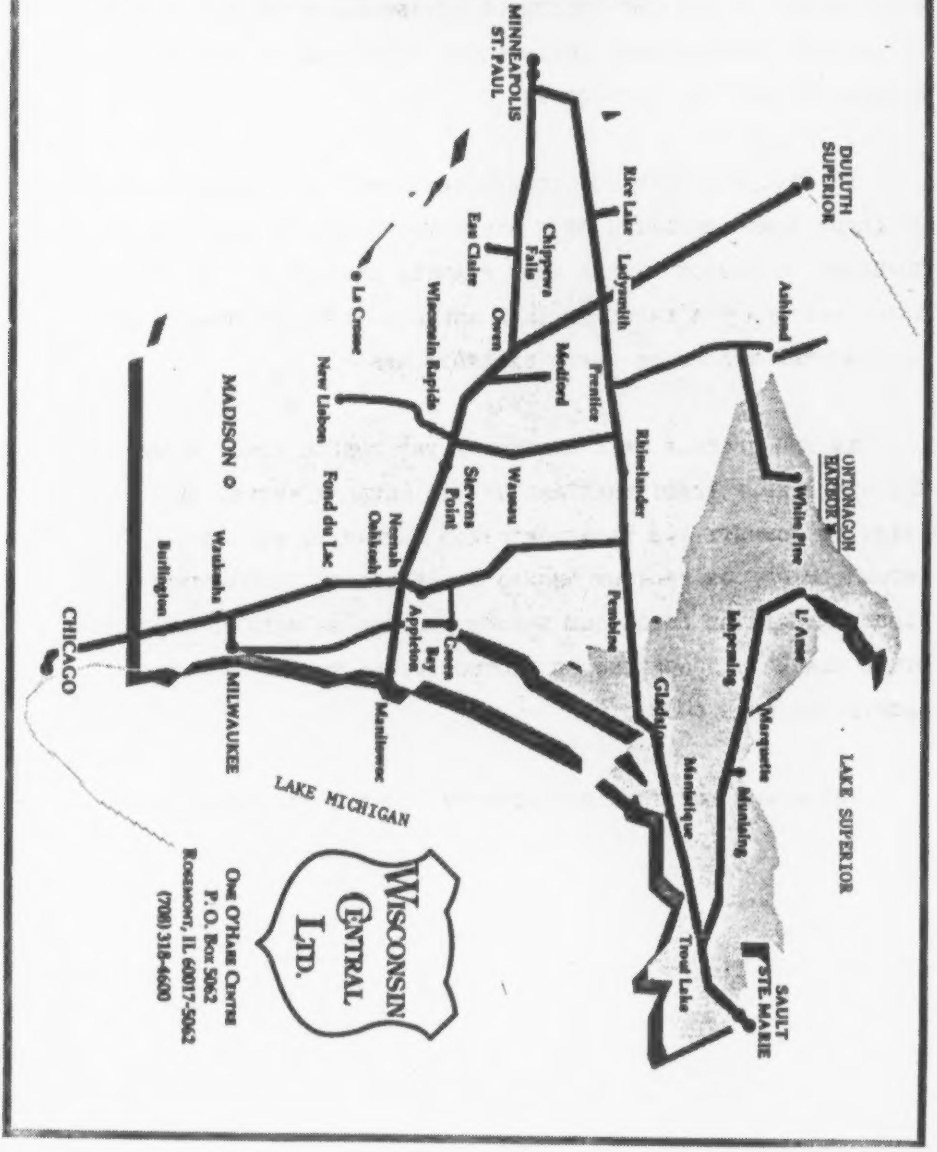
THESE FEDERAL SUBSIDIES ARE OFTEN WASTEFUL AND UNECONOMIC. THE ONTONAGON HARBOR SITUATION IS SUCH THAT EVERY POUND OF FREIGHT PRESENTLY MOVING BY WATER COULD MOVE BY RAIL AT CONSIDERABLY LOWER COST, WHILE SAVING THE RAPIDLY DWINDLING RAIL INFRASTRUCTURE.

WE HAVE NOT EVEN CONSIDERED THE GREAT ENVIRONMENTAL COST OF LARGE SCALE DREDGING OF A RIVER MOUTH ON THE SHORE OF LAKE SUPERIOR, A REGION WITH A VERY FRAGILE ECOSYSTEM. WE MUST ALSO CONSIDER THE LARGE FEDERAL DEFICIT, AND THE DEMONSTRATED DETRIMENTAL EFFECT OF THESE EXPENDITURES.

IN THE ABSENCE OF A REPORT OF THE PUBLIC BENEFIT FROM THE PROPOSED EXPENDITURES AND OF THE ADVERSE EFFECT ON EXISTING COMPETITIVE TRANSPORTATION ALTERNATIVES, THE ONTONAGON HARBOR PROJECT SHOULD NOT PROCEED. ACCORDINGLY, WE REQUEST THAT THE ONTONAGON HARBOR PROJECT BE DELETED, AND THE OTHER MEASURES SUGGESTED TO PROTECT VITAL RAIL SERVICES BE ADOPTED BY THIS COMMITTEE.

THANK YOU FOR THIS OPPORTUNITY TO MAKE OUR VIEWS KNOWN.

EXHIBIT TO TESTIMONY OF EDWARD A. BURKHARDT
PRESIDENT OF WISCONSIN CENTRAL LTD.


DULUTH
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White Pine
Fond du Lac
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Mr. CLEMENT. Now we have the Association of State Floodplain Mangers, Inc., Ms. Rebecca Hughes, Water Resources Administration, State of Maryland.

Ms. Hughes, it is a pleasure to have you here.

FLOODPLAIN STATES

TESTIMONY OF REBECCA HUGHES, WATER RESOURCES ADMINISTRATION, STATE OF MARYLAND, THE ASSOCIATION OF STATE FLOODPLAIN MANAGERS

Ms. HUGHES. Thank you, sir.

I am here today on behalf of the Association of State Floodplain Managers to express our opposition to the cost sharing requirements proposed for flood plain management services and planning assistance to states. We have submitted a written statement for the record, and I will summarize it.

Mr. CLEMENT. Your testimony will be entered in full into the record without objection.

Ms. HUGHES. Thank you.

The Association is the only national organization of state and local officials responsible for managing flood-prone areas, and for helping with rebuilding efforts after the water recedes. We work daily to identify problem areas and to develop approaches for land management of those areas, to mitigate existing flood hazards, and to prevent future risks and damages.

Annually—and I am sure you have heard the numbers many times—over $5 billion in property damage is caused by floods of all sizes. They range from the big ones like Hurricane Hugo, and the one several weeks ago, the deluge that moved through the south more than once, to small, intense thunderstorms that only make the local evening news.

Despite long-term efforts of Federal and State government, floods continue to affect large numbers of people across the nation. The most effective flood plain management effort is when a property owner decides to avoid the flood plain. Unfortunately, the benefits of such a decision never show up on anyone's balance sheet.

We are very concerned with continued efforts to require cost sharing of what has been recognized as one of the most effective programs to reduce and avoid flood related problems, and that is the Corps' FPMS program. This program provides a variety of technical assistance to a full range of recipients. If I can speak to some of Dr. Dickey's comments, even though he is no longer in the room, I would like to.

He focused on the states as being a recipient. The vast number of recipients are citizens, businesses, industries, small towns. Of course, the larger towns, cities, counties and states are also included.

Much of the success of the FPMS program is immeasurable, since it leads to damage and dollars avoided. One result is that disaster assistance, under the jurisdiction of this committee, would not have to be paid out.

Therefore, it is difficult to accept a programmatic decision based on dollars. But that is just what is happening when cost sharing is proposed for FPMS.

Mr. Stangeland, you inquired if cost sharing would defeat current Federal objectives. We answer resoundingly "yes." Dr. Dickey indicated that cost sharing would not affect sound projects, but we maintain that the most vital aspects of FPMS cannot be measured by the same criteria applied to projects. Technical assistance is not a construction project.

Annually, the corps responds to nearly 90,000 requests for help. Many of them are simple phone calls from citizens, asking for readily available data in order to make informed decisions. Many requests come from lenders and insurance agents, trying to ascertain that flood insurance is properly required.

It is hard to understand how making these folks pay will improve the corps' responsiveness.

A very important aspect is the consistency of information that is provided by the corps. Consistency greatly enhances a community's ability to do a good, defensible job of flood plain management. I am sure you can appreciate this job is often very tough, since many property owners object to any form of land use regulation, even where significant risks have been identified.

Flood Plan Management Services is the program that conducts several efforts that are vital to public safety. We have all heard about the success of the evacuation efforts in South Carolina. Interestingly, one measure of that success is that there were no deaths during the evacuation. Very high on the list of those responsible for that success is the Corps' Flood Plain Management Service. The hurricane evacuation study for the Charleston, South Carolina coast was managed by the corps under this program.

Similar studies have been conducted or are now in process, including the Chesapeake Bay. By the way, Washington would be affected by just the wrong hurricane coming up the Chesapeake Bay. The coastal areas of New York are also currently being studied.

A relatively new initiative under FPMS undertakes the study and design for flood warning systems, used to warn of pending flash floods. These are the fast and furious floods that cause so many unexpected and unnecessary deaths. There is no way to calculate the dollar benefits of good evacuation. Ill-prepared evacuations cost lives, not just dollars.

If I may point out some specific examples, Mr. Osann from the National Wildlife Federation indicated that there should be no new development in the flood plain due to the present availability of mapping. As you pointed out, Mr. Stangeland, many communities are entirely within the flood plain, so saying no new development should occur is extraordinarily limited.

Another point, though, is in Louisiana. Thirty-three percent of Louisiana's communities, including many of the parishes along the coast, have no specific flood plain elevations. This means there may be a map that says "here's the flood plain". But when a community tries to do the best job they can and elevate a house properly, nobody knows how high it should be built. They turn to the corps for this information.

Several weeks ago, just before my testimony before both the House and Senate Appropriations Subcommittees on these programs, I tried to call my colleague in Alabama. If you recall, there were quite a number of floods in the area, in particular a levee that failed. He was busy with the post-disaster work. This question of how FPMS works after floods came up at the time. The communities that have been badly hit have the opportunity to request help through the Corps' Flood Plain Management Services program. This help would be very instrumental in guiding repairs to minimize and mitigate future damage. But consider their despair if they are told that the state of the art expertise is there, all they have to do is pay for it. As I am sure you know, there is no extra cash after a flood.

Flood Plain Management Services conducted a flood hazard study of the Tonawanda Canal in New York, ranging from Grand Island to the upper Niagara area. This information led to improved local zoning and planning, which will reduce flood problems in the future.

Another aspect of cost sharing concerns us. Dr. Dickey indicated that in-kind services are not allowed. The primary reason for this is that budgeted funds pay corps' salaries. Crediting states and locals for our contribution doesn't put money into anybody's paycheck. The vast majority of the Flood Plain Management Services projects that include states already have some form of state contribution.

If we have to contribute cash, we are in a position of directly paying for federal salaries. This puts the corps in the posture of competing with private engineering firms for limited state and local dollars. We believe this is inappropriate.

We appreciate the Administration's desire to trim the budget. We are taxpayers, too. But it should be for a better reason than expediency and cold, hard numbers. What will we get for cost sharing? By 1990, 50 percent of FPMS is $5 million. Fifty percent of planning assistance to states is about $2.5 million. We believe we will see three consequences. These programs will be less efficient since extra work will be required to negotiate, collect, and process charges for services. Imagine collecting a fee every time a citizen calls in to try to get some available information.

These programs will be less responsive because additional time will be taken in collecting and processing paperwork, so that the real work will have to wait.

These programs will be less effective. Efforts will be directed to the few communities and states that have money, and those frequently with the greatest need will go without. Sustaining cost sharing will overwhelm legislative objectives for flood plain management, and the nation will end up with more development susceptible to flooding and damage.

The planning assistance to states, the Section 22 program, is active—I believe—in all states. I would point out that the variety of items accomplished under that program are greater than under the Flood Plain program. I urge you to find out what is being done in your state.

Dr. Dickey indicated that performance could be strengthened by cost sharing. We strongly disagree if a cost match is required. In my state we already contribute significant staff resources, data, and some funding, even though not currently required, to accomplish statewide and regional water demand analyses.

To respond to Mr. Cox's question, the draft Water Resources Development Act language that I have seen provides no guidance for including such in-kind services in the match. I would point out again that since section 22 pays for salaries, thus, it seems the intent of the language is to ignore current in-kind contributions, because they could not be used to pay salaries.

In summary, the Association of State Floodplain Managers urges the removal of cost sharing requirements for Flood Plain Management Services and for the planning assistance to states programs within the Corps of Engineers authorizations. I would be pleased to answer any questions.

Mr. CLEMENT. Thank you, Ms. Hughes.

Could you give us a few specific examples of the types of assistance the corps provides under its Flood Plain Management Services program?

Ms. HUGHES. Yes. I mentioned a range of recipients. If a citizen has a piece of property and there is no readily available information, there are many flood plain maps out there that do not have engineering data on them, that citizen can call the corps. The corps frequently turns to either historical information or perhaps a study they have done which is not yet reflected on the map, and can provide the information. They can tell the property owner to build to a certain elevation and that will minimize the risk.

Industries, especially after a flood, have been known to request flood proofing surveys. The corps currently has resident expertise in flood proofing. Many buildings have been in the flood plain for decades. They were built before we regulated. Most of them, especially many large buildings, are not going to relocate. It is just economically not feasible.

So the corps can come in, survey an industry, and provide recommendations for minimizing damage. In Maryland, we used this service to evaluate a school that is susceptible to flooding. For a day and a half of the corps' service, and some of my staff's time, we produced a report. I can guarantee you that if we had had to come up with cash to pay for a day and a half of salary, we would not have been able to provide the school with the flood proofing survey, parts of which they are going to implement.

The range goes on, and the corps does have some background materials I think you would find interesting.

Mr. CLEMENT. What would be the impact of cost sharing for this program on smaller communities?

Ms. HUGHES. I believe one of the most significant impacts of the lack of information is that communities who already struggle to manage their flood plains would have a harder job. They would not be able to withstand development pressures where they are occurring. It would be much more "seat of the pants", and I think we would end up with more development being improperly constructed.

Mr. CLEMENT. Our worthy colleague, Mr. Stangeland.

Mr. STANGELAND. Thank you, Mr. Chairman.

Ms. Hughes, I gather that you have a great deal of concern that we on the federal level may pass a ban on federal funding that would require you do any future development you do on your own. How do we approach this problem of continued development in flood plains, on shorelines, that exacerbate the erosion problem, and then we come in and fund the nourishment of that shoreline? Do you have any idea how we could approach that problem?

Ms. **Hughes**. First let me say that we would encourage more stringent national standards. In particular, the current standard says that you can put your first floor, the hard surface right under your carpet, at the 100 year floor plain level. That means that everything below that, of course the carpet is going to soak up water, will sustain some damage. We would like to see at least a foot added to that, so that buildings are above the flood plain.

We would like to see prospective view taken. Right now, the maps we have depict the flood plain that would occur if no upland development had happened in the last 20 years. It is just too limited and underestimates potential flooding.

We would not have a problem with limiting assistance. In fact, disaster assistance is currently limited, or unavailable, if a community is not fulfilling their obligations under the flood insurance program. If they are allowing blatant violations, then disaster assistance can be withheld.

With regard to saying "don't build" I am sure you can understand there are some constitutional problems with that, if there is no compensation. The flood insurance program comes close with what is called the floodway. It tends to be the area right along the river where the water is deepest and fastest moving. They say that you can build there, but if you do, all sorts of detailed engineering must be provided to show there will be no increase in that water surface elevation. The effect of that tends to be very limited development in the floodway.

Your question along the coast is a question being asked by many of your colleagues, not just after Hurricane Hugo, but in the last few years, with the provision in the flood insurance program called the Jones-Upton provision. People are asking, and we encourage the question, what states and local communities should do in return for a federal program that insures development that is subject to erosion. We would like to see a local land use management program.

Mr. **Stangeland**. Thank you very much.

Ms. **Hughes**. Thank you.

Mr. **Clement**. Thank you very much.

Ms. **Hughes**. Thank you, Mr. Chairman.

[Ms. Hughes' prepared statement follows:]

ASSOCIATION OF STATE FLOODPLAIN MANAGERS, INC.
P.O. Box 2051 Madison, Wisconsin 53701-2051

TESTIMONY OF REBECCA HUGHES

WATER RESOURCES DEVELOPMENT PROGRAM
# of the
U.S. ARMY CORPS OF ENGINEERS

APRIL 24, 1990

The Association of State Floodplain Managers is the only national organization of state and local officials responsible for managing flood-prone areas. We represent the state and local agencies that work to reduce and prevent flood damage.

In an average year, floods kill 150 people and cost the Nation over $5 billion in property damage. Floods have been and continue to be a tremendous burden to taxpayers. The federal government alone spends over $1 billion each year in disaster assistance, subsidized flood insurance, and flood control projects. Fifty years of experience with federal floodplain programs have shown that the best way to prevent and reduce flood losses and to minimize federal expenditures is to have effective state and local programs.

The U.S. Army Corps of Engineers' has two programs of particular interest: the Floodplain Management Services Program, and Section 22 (Planning Assistance to States). For a relatively small federal expenditure these programs will result in very large federal savings through the prevention or reduction of damage and death due to floods and through rational water resources management planning.

The Association of State Floodplain Managers supports:

1. Elimination of the proposed cost sharing for the Floodplain Management Services Program (FPMS); and

2. Elimination of the proposed cost sharing for the Planning Assistance to States Program (Section 22 of the Water Resources Development Act).

The Cost Sharing Issue

In 1989 the Administration recommended reduction in FPMS funding to $5 million. This was to be paired with a requirement for 50/50 cost sharing on the theory that it should be a $10 million program. Congress recognized the value of these reconnaissance level efforts, and removed the cost sharing proposal. These high priority services have continued at full federal cost. This year, the Administration's budget proposes phased cost sharing with a 10%, 30%, and 50% match required for FY'91, FY'92, and FY'93, respectively. It is anticipated that the Administration's proposed Water Resources Development Act of 1990 will provide the Corps the authority to implement cost sharing.

The Floodplain Management Services and Planning Assistance to States Programs are not grant programs that fund state staff, as is the case with many other cost shared programs. Funds are used for salaries of Corps staff. State and local funds should not be used to pay the salaries of federal employees. This gives the appearance that the federal government is in competition with consulting engineering firms, which should not be the case.

Activities under these programs are already partnerships. State and local governments already pick up the lion's share of the costs of administering nonstructural flood hazard reduction and water resource planning efforts. Some state programs have budgets around a million dollars, yet they are still inadequate for demand. State funds are used to develop and administer state plans and standards, to assist local communities with adoption and administration of programs and regulations, and to train state and local staffs.

Over the years, a strong federal/state/local partnership has been carefully forged to pool ALL available resources to address the Nation's ever increasing property losses and the threats to life, health and safety. Each level of government must do its part, building on their respective strengths. A key strength of the federal government resides in the technical expertise of the Corps of Engineers. The federal partnership role should be to use that expertise to meet federal objectives: to assist citizens, communities, and states who are working to guide new development to avoid the risks of flooding, and to reduce risks to existing, susceptible structures. Simply because a program may also meet some state and local objectives does not mean that a cost sharing requirement makes sense.

Recommendation: We strongly urge that Congress eliminate the proposal for cost sharing of FPMS and Section 22. This action will continue the federal commitment to the partnership effort to reduce flood losses in the Nation, and to promote comprehensive water resource planning incorporating multiple objectives of flood control, water supply, etc.

Floodplain Management Services Program

The Corps of Engineers' Floodplain Management Services staff responds to requests for assistance from state and local officials, citizens, and the private sector in order to promote prudent floodplain avoidance and development. The program is unique and most helpful for reducing future federal costs for disaster assistance and recovery. It responds on short notice to day-to-day problems through a nationwide network of District offices. Its skilled engineers and planners provide the latest technical information on a variety of flood protection and avoidance measures.

The Corps responds to nearly 90,000 requests for assistance each year. Most of these responses provide information on site specific flood hazard and guidance on how best to prevent or reduce flood damages or other negative impacts to the natural and beneficial values of floodplains, including wetlands. States and communities without expertise also request help to prepare and implement flood warning, evacuation and flood hazard mitigation.

The benefits of the FPMS program greatly outweigh the costs. Fifteen minutes of technical advice to a property owner can result in measures that prevent thousands of dollars in flood damage. A day spent with a local official to develop better floodplain regulations or to critique a flood evacuation plan can result in hundreds of thousands of dollars in flood safety and protection. The more property owners and local officials are helped and encouraged, the less they will need federal disaster assistance or federally funded flood control projects. Cost sharing is proposed to implement the "beneficiary pay principle" yet the federal treasury is, by far, the key beneficiary of the FPMS program.

Floodplain Management Services is budgeted as a line item under "General Investigation, Collection and Study of Basic Data". Unlike other Corps' line items, there is no relatively simple or straightforward way to collect payments from such a large and diverse constituency. In many cases, the costs of administration and collection would be even more than the cost of providing the services outright.

Unless cost sharing is eliminated, the Corps will have to cut other types of assistance. Hurricane evacuation studies along the entire Atlantic and Gulf Coasts, flood hazard studies along the Great Lakes, and flood warning studies in flash flood areas, are among critically needed efforts that will suffer.

Because cost sharing for activities under FPMS makes no sense, we can expect little or no participation from state and local governments or the private sector, particularly individuals. As a result, Corps services will be cut to almost nothing and even services to those few with the ability to cost share will be reduced. This will mean:

- virtually all of the requests for floodplain information and assistance to build safer structures will go unanswered;
- billions of dollars worth of new construction may be inadequately protected from flooding;
- flood damage will increase, as will federal, state and local disaster and recovery costs;
- hurricane evacuation studies will be delayed or dropped, putting millions of citizens at risk;
- acquiring flood data on the Great Lakes will be delayed;
- people will continue to live at great risk to flash floods.

Recommendation: Because of the relatively small cost to the federal budget compared to the benefits gained, **we strongly urge that Congress eliminate the proposed cost sharing for the Floodplain Management Services Program.**

Planning Assistance to States Program

The Planning Assistance to States Program, authorized by Section 22 of the Water Resources Development Act of 1974, is included in the Corps' budget under "Cooperation with other Federal Agencies, States and non-Federal Interests". This program uses Corps staff and expertise to encourage and promote broad, statewide or regional comprehensive water resources planning, to avoid duplication of federal/state efforts, and to achieve federal and state goals. Assistance encompasses the full array of planning methodologies embodied in the development of comprehensive multi-objective water resource projects and related areas for which the Corps has planning expertise. Section 22 provides assistance that supports and supplements state efforts and which, in many cases, becomes an integral part of the state's overall plan. Assistance has been provided without cost as an incentive for the states to take action to resolve identified water resource problems such as flood control, water supply, etc. In recent years, the Corps has provided assistance annually to all states and U.S. Territories.

Like the Floodplain Management Services Program, funding for the Section 22 Program is also used to pay the salaries of Corps staff. State funds for these activities are fully committed to undertaking the state role in water resource protection. As water resource regulation, protection and enforcement programs become more complex, and as more and more development pressure is brought to bear on the Nation's limited water resources, the need to develop comprehensive plans increases. Few if any states are likely to provide funds to pay the salaries of federal agencies, especially when the states perceive there is a legitimate federal role that should and must be appropriately supported by Congress.

Recommendation: Because of the legitimate federal role and need for programs in the vital area of water resource planning, we urge that Congress eliminate the proposed cost sharing for the Planning Assistance to States Program (Section 22).

If there are any questions or comments on this testimony, please call Larry A. Larson, Executive Director of the Association of State Floodplain Managers, at (608) 266-1926.

Mr. **Clement**. Our next witness is Doug Harrison, Treasurer, National Association of Flood and Stormwater Management Agencies, and General Manager-Secretary of the Fresno Metropolitan Flood Control District.

Welcome.

TESTIMONY OF DOUG HARRISON, TREASURER, NATIONAL ASSOCIATION OF FLOOD AND STORMWATER MANAGEMENT AGENCIES, AND GENERAL MANAGER-SECRETARY, FRESNO METROPOLITAN FLOOD CONTROL DISTRICT

Mr. **Harrison**. Thank you, Mr. Chairman. Perhaps I am the witness you have been looking for all morning.

As you indicated, I am associated with the National Flood Control Association and have chaired the Corps of Engineers Liaison Committee for the Association for the past two years. In my spare time, I manage a local flood control agency in California. I flew in last night from California for the hearing, and I appreciate your patience and admire your endurance. I will try to summarize in four or five minutes the testimony we have already submitted in writing.

Mr. **Clement**. Mr. Harrison, your entire testimony will be submitted into the record as if read, and without objection.

Mr. **Harrison**. Thank you very much, sir.

Our association represents State and local agencies across the nation who are actively involved in water resource projects with the Corps of Engineers. We have been active players in the development of new partnership efforts intended by Congress to make the 1986 Act work.

We are continually committed to the goals that the Congress set forth. We strongly support your continued efforts on the two-year reauthorization cycle. We continue to support an equitable sharing of costs within the framework of a fair partnership between the corps and local sponsors.

We joined with the corps in conducting a nationwide workshop in 1989 for both corps and local project managers. The purpose was to find ways to make the process intended by the Congress work more effectively. You have addressed some of those issues in your questions this morning.

The conference indicated that there are many areas of success, and we commend the corps for those. The conference also identified areas where there is a lot of fine tuning required. Most of our comments today flow out of the information generated in that nationwide conference.

We have provided through your staff copies of the pre-publication conference report. I think you will find it interesting to see the indications of how the process is working for corps project managers as well as local sponsors of the local agencies.

The issues we are going to address, we would request that your committee consider as you look at a 1990 reauthorization bill. First, we would request that your committee address advancing the date of the LCA contract signing. Under Federal administrative practices now in place, that signing is delayed until construction funds are actually appropriated. Your local sponsors have to be out front arranging financing and acquiring land far in advance of construction. That timing as currently practiced is a difficult problem.

Secondly, the policy concerning the apportionment of responsibility for hazardous waste has been evolved over the past several months without local input, to the end of shifting to the local sponsor virtually all of the costs associated with that aspect of a project, even when economics and common sense says that the hazardous waste mitigation might need to be a cost shared construction related obligation.

We believe Congress should mandate a consistent policy, which includes standard cost sharing concerning some of those hazardous waste issues.

We have concerns relating to cost sharing on correcting design and engineering deficiencies and also on the payment for correction of project errors we have addressed.

In Section 104 of the 1986 Act, the Congress gave instruction that there was to be a crediting procedure developed. Section 104(e) has been interpreted to reduce rather than expand the opportunities for project, efficiency through local work done by the local sponsors. Our association has drafted a proposed amendment that we think accomplishes the original Congressional intent while protecting the Federal interests and process.

We believe the Congress needs to clearly establish that the Federal interest includes the concept of the lowest total project cost. Also, we ask the Congress to affirm the rule of local sponsors as a full active partner with the Federal partner in planning, financing and construction of these projects through fairly negotiated local cooperation agreements.

As you have heard, I am sure, from your own local agencies, there are some inconsistencies in the method of negotiation of those contracts. We also urge the Congress to endorse a greater delegation of project authority down to the local districts, streamlining the review process and providing an effective appeal process.

We have noted that section 902, which includes the cost cap on projects, has had an unintended impact in communities where nonstructure related costs portend the delay of at least two years of a project so impacted. We believe that section needs to be looked at and language providing flexibility in administration developed to solve those unintended problems.

Somewhat relatedly, section 215 of the 1968 Act provides a dollar limit on the amount of work a local agency can do, and receive credit for. Again, that limit many times prohibits the local community from doing meaningful units of work and there is some flexibility we believe needs to be examined in that area.

You are aware that the Senate has received draft legislation in the form of Senate Bill 2183. We have reviewed that, and we believe sections 302, 303, 304 and the intent of 305 can be supported, although 305 needs some technical correction in the language to do what it was intended to do. We have proposed that.

In addition, we have had an opportunity to give a cursory look at the Administration's proposal, Senate Bill 2469, and based on our early review, we do have some limited concerns in the area of sections 8, 11, and 19.

Lastly, Mr. Chairman, there was comment on the Federal Infrastructure Council. There has been a bill introduced on the Senate side providing the creation of that Council, although I do understand it is not in the specific package introduced by the Administration. That bill is Senate Bill 2046.

Our association could support that Infrastructure Council. We believe that the reduction in public works funding and increases in environmental demands has hit stormwater management programs particularly hard across the country.

We appreciate being here today, and your patience, and I will answer any questions you might have.

Mr. CLEMENT. Thank you, Mr. Harrison. I have two questions for you.

How would you describe the general feeling of satisfaction or dissatisfaction with the ability of local sponsors to negotiate satisfactory local cooperation agreements with the Corps?

Mr. HARRISON. It is generally unsatisfactory. That subject has been addressed in the national workshop. The Corps has addressed it in their own training program. In fact, I have been invited to participate in two of their internal training programs to help address that, so that their people can become more knowledgeable on local issues.

But there are still the structural issues that Dr. Dickey talked about in terms of consistency that need to be addressed. We believe consistency can be achieved, and the process improved by delegating much of that Authority down to the district level.

Mr. CLEMENT. I know you recommend increasing the amount for which a non-federal sponsor may be reimbursed for performing work on a Federal project, and I know the Administration has concerns about incurring potentially large amounts of reimbursement obligations for locally performed work.

Do you have a specific amount which you would favor as a higher limit for reimbursement?

Mr. HARRISON. There have been a number of levels discussed on that limit for section 215 credit. I am not sure there is a magic formula, Mr. Chairman. I think it comes down to a matter of common sense, looking at a local project area, and making sure that the work that is done is a logical unit compatible with the Federal project. If it meets the compatibility tests that the Congress set forth as the objective, then there is no reason why it should not be undertaken if it improves the timing, the functioning, and the cost effectiveness of the project, irrespective of what the dollar amount might be.

Mr. CLEMENT. But you don't have a specific dollar amount?

Mr. HARRISON. No, sir, we would not suggest one at this point.

Mr. CLEMENT. Mr. Stangeland?

Mr. STANGELAND. Thank you, Mr. Chairman. Thank you, Mr. Harrison.

I don't have any specific questions. I find your testimony very interesting and we certainly want to take it into account. Your people play a major role in this whole operation and process. As such, we think that there ought to be a closer coordination between local interests and flood control managers and the Corps, and we very much appreciate your input.

Mr. **Harrison**. Thank you. We believe our agencies are where your policies meet the road, and we do appreciate the work of your staff, certainly with the Corps.

Mr. **Clement**. Thank you, Mr. Harrison.

[Mr. Harrison's prepared statement follows:]

Testimony
of
Doug Harrison, Treasurer
National Association Of Flood And Stormwater Management Agencies
and
General Manager-Secretary
Fresno Metropolitan Flood Control District

before the Subcommittee On
Water Resources
House Public Works and Transportation Committee

April 24, 1990
Washington, D.C.

Mr. Chairman, Members of the Subcommittee, I am Doug Harrison, Treasurer of the National Association of Flood and Stormwater Management Agencies (NAFSMA) and General Manager-Secretary of the Fresno Metropolitan Flood Control District. I also serve as chairman of NAFSMA's Corps Liaison Committee.

NAFSMA represents many state and local public agencies nationwide, the majority of which are currently involved with ongoing water resource projects with the Corps of Engineers. As an organization, and as individual agencies, NAFSMA represents a large group of the original players in the federal partnership effort which was intended by Congress to make the 1986 and 1988 Water Resources Development Acts work.

The association commends the Subcommittee for its efforts to keep the Water Resources Act on a two-year reauthorization cycle. As current and potential local sponsors, our members are well aware of the need to continue the regular two year authorization cycle.

I would also like to underscore the commitment of NAFSMA and its members to the basic tenets of the acts – partnership and cost-sharing. To demonstrate our commitment, NAFSMA, jointly with the U.S. Army Corps of Engineers, sponsored a nationwide workshop in Arizona on December 6-8, 1989 to identify means of refining the project management process and of strengthening the Federal-Local Partnership.

By bringing together local sponsors and many of the Corps Life Cycle Project Managers from across the country for this in-depth review, which focused on regional and national issues, the individuals charged with making the new partnering effort a success were able to identify important recommendations for improving the project management process.

I am pleased to provide the Subcommittee with a pre-publication copy of the conference report entitled "*Making the Water Resources Development Acts of 1986 and 1988 Work: Strengthening the Federal/Local Partnership.*" The report reviews and summarizes the discussions and recommendations of the conference.

Included in those recommendations were three that the Corps of Engineers has already moved to address. The Corps deserves commendation for this immediate response. Included in a recently released draft local sponsors' information kit are documents designed to clarify sponsor's rights and responsibilities, to identify the negotiable and the non-negotiable issues in an Local Cooperation Agreement (LCA) and finally, to serve as a guide to Corps reference materials. These were among some of the specific needs identified at the Arizona workshop.

The joint workshop and the Local Sponsor Kit are clear examples of the Corps' efforts to improve the partnership. We expect similar efforts in the coming months. However, as evidenced by pending Senate legislation and the comments of those participating in the Arizona workshop, the system still requires fine-tuning. Although some of that refining can be accomplished by changes in internal Corps policy, other issues, such as those which we will discuss today, will require legislative direction.

Let me review some of the overriding themes and agreements which resulted from the workshop:

- There is consensus that the new partnership between the Corps of Engineers and local sponsors is moving forward.
  - *There is a clear need for additional education of the Corps as to local cooperation and issues, and an increased need for involvement of local sponsors in all phases of the process.*
  - *Despite some progress, there is a continuing need for better coordination and understanding among the various levels within the Corps.*

- Cost-sharing is accepted as the basic operating principle; though the means of equitably implementing this principle are still evolving.
  - *Statutes can change faster than the institution and its delivery systems.*

- There is an improved level of cooperation and joint problem-solving that is involving more parties, expertise and commitment in federally-sponsored projects. This promises better projects for the future.
  - *Local expectations are forcing changes and a review of Corps procedures.*
  - *Local sponsors bring a broader context to the planning and design of projects.*

Mr. Chairman, as background for your own Subcommittee discussions and drafting of legislation, I would briefly like to address a number of issues that have been included in pending Senate legislation (S. 2183).

Within S. 2183, NAFSMA supports sections 302, which would require changes in eligibility criteria for Corps civil works projects to be submitted to Congress and prevents the use of such changes in determining the eligibility of projects for which the reconnaissance study predated the issuance of such changes. NAFSMA also supports Section 303, which would require two-year reporting by the Corps to Congress on the district and divisional conduct of the Civil Works program and performance of its key commanders.

NAFSMA also supports Section 304 and the goal of Section 305. We note, however, that technical corrections are needed in the Senate's proposed language for Section 305. As Section 305 is proposed on the Senate side, some communities could be forced to construct a project using as much as a 500-year level of flood protection where only a 100-year level of protection is economically justifiable.

NAFSMA recommends the House give consideration to a provision similar to Section 305, and that language be included which provides: 1) "While the 100-year level of protection is a desirable objective, federal assistance should not be denied to economically justified projects and where that level of protection is not required by local conditions," and 2) "Project sponsors be permitted to select a project's protection level within the range of the 100 year event and the NED design, provided the selected protection level is economically justified."

The Administration's Proposal

Within the administration's draft proposal recently transmitted to Congress, NAFSMA has some minor concerns. Although the Association supports the concept of cost sharing, as enacted for water resource projects, NAFSMA would be opposed to expanding this concept to apply to Corps flood plain management services, as specified in the administration's draft proposal.

Also of potential concern are the administration's proposals on project interest and discount rates and the expansion of the Corps emergency and disaster authority.

NAFSMA Proposals

In addition to the proposed legislative provisions that are currently before you, NAFSMA asks that the following proposals or issues also be considered.

Advance The Signing of LCAs

Current federal administrative practice precludes transmittal of the LCA to the ASA (Civil Works) until (1) the General Design Memorandum (GDM) is completed, (2) the project is budgeted as a new start and (3) the local financing plan is complete. Actual signing is further delayed until construction funds are actually appropriated by Congress.

This policy creates a severe hardship on local sponsors who must arrange project financing and work to secure lands, easements, rights of way and relocations (LERR) far in advance of construction. Such work typically requires a signed LCA. The Corps-delayed execution subsequently delays the local work which results in project delays and higher costs.

The association proposes that the LCA be executed upon approval of the GDM with the local sponsor to be reimbursed for 50 percent of its subsequent costs should Congress not proceed with construction appropriation.

Hazardous and Toxic Waste Language

Current policy concerning the apportionment of responsibility for remediation of hazardous waste sites found on project sites continues to evolve. Many local sponsors have been required to accept substantially different performance obligations due to this continuing evolution. In addition, the Corps has attempted to shift all such costs to the local sponsor, even those legitimately related to construction.

While we recognize the Corps' continuing efforts to refine the language to address local sponsor concerns, NAFSMA remains concerned about how these requirements were initially imposed on local sponsors, without the benefit of public review and/or legislative direction. Sponsors should have an opportunity for review and comment on proposed changes such as the hazardous waste language, which are to be made mandatory requirements for signing of an LCA. Unilateral imposition of new LCA requirements is not consistent with the spirit of partnership and cooperation needed to make the Water Resources Development Acts work.

In this area, Congress needs to mandate a consistent policy, allowing local sponsors to participate in its development. Further, Congress needs to mandate the standard cost sharing concerning such work.

Cost Sharing on Correction of Design, Engineering or Construction

Noted as a concern by the participants at the Arizona workshop was cost-sharing on correction of design, engineering or construction deficiencies. Prior to the 1986 Water Resources Development Act, the Corps paid 100 percent of such corrective work. NAFSMA recommends inclusion of a legislative provision that directs that cost-sharing requirements that were in effect at the time of a project's actual construction be applied to any projects or remediations to correct design, engineering or construction deficiencies. More specifically, the Corps should be required to pay 100 percent of the cost of correction of its own design and construction errors.

Credit for Work Done After Date of Enactment

The WRDA of 1986 provides instruction to the Corps in Section 104 to develop procedures for crediting compatible project work done by local sponsors. Two procedures were required by the Act, one relating to work done before enactment and one for work done after enactment. Subsequent interpretation of the latter procedural authorization has limited the effectiveness of the section and reduced, rather than expanded, opportunities for project cost savings through local work. The association has prepared a proposed amendment to Section 104 (e) of the 1986 act which maintains the Secretary's authority concerning the determination of compatibility but allows such work to be credited on the basis of the fact of the compatibility rather than the timing of the determination.

Additional Statutory Improvements Needed:

We would encourage the Congress to include consideration of the following additional needs in the WRDA for 1990.

1. Establish that the federal interest includes the concept of "lowest total project cost," irrespective of the mix of LERR or construction.

2. Affirm the role of the local sponsor as a full active partner with the federal government in the planning, financing, construction, management and operation of civil works projects, including the following specific provisions.

   a). Mandate the increased delegation of project authority to the Corps Districts relative to negotiation of the LCA and the planning, construction and management of the project.

   b). Mandate a streamlining of the project review process, including the required participation of the local sponsor in the review of proposed changes and establishing an effective appeals process for the local sponsor.

Section 902 - Maximum Cost of Projects

It has been noted that the 20 percent limit for cost increases from the level of authorized total project cost, which was imposed by Congress under P.L. 99-662, has had the unintended effect of penalizing communities where project costs are impacted by factors outside the scope of the construction of the plan, such as the land costs. In such instances, the communities must then wait for the next authorization cycle to secure reauthorization of the project. NAFSMA recommends that language be included in the 1990 reauthorization act to provide flexibility in administration of the project cost limits to recognize increases caused by non-construction related factors.

Section 215 - Reimbursement Limitation Per Project

Participants at the Arizona workshop raised the concern that in many cases the existing limits for advance construction of an authorized project under Section 215 (currently $3 million or one percent of the total project cost) of the Flood Control Act of 1968, do not allow local sponsors the flexibility needed to respond to local project needs or cost-saving opportunities in a timely manner. As the sponsor is totally at risk in advancing a portion of an authorized plan, they should have the ability to advance a meaningful segment of the project, especially in light of current construction costs and the potential for savings to both the federal and local partners. NAFSMA requests that Congress increase the Section 215 limit to allow sponsors to respond to such local needs and opportunities.

Federal Infrastructure Council

NAFSMA would support the establishment of a Federal Infrastructure Council. The recent declines in federal public works funding, combined with growing environmental requirements, create a need for a major national focus to be given to our country's infrastructure needs, particularly those related to water resources.

As an association that represents the interests of flood control and stormwater management agencies nationwide, NAFSMA would welcome the opportunity to play a role in such an effort.

In closing, I greatly appreciate the opportunity to testify before the Subcommittee on behalf of the Association and welcome any questions that you may have.

ALTERNATE AMENDMENT NO. 1
SECTION 104, SUBSECTION (e)
PL 99-662

(e) PROCEDURE FOR WORK DONE AFTER DATE OF ENACTMENT. The Secretary shall consider work carried out after the date of enactment of this Act by non-federal interests on a project for flood control under subsections (b) and (c) in accordance with the guidelines issued under subsection (a). The guidelines shall require approval by the Secretary of any flood control work carried out after the date of enactment of this Act in order to be considered under this section, taking into account the economic and environmental feasibility of the project. The Secretary shall be the sole determinant of the compatibility and value of the flood control work performed by non-federal interests to be credited pursuant to this subsection.

ALTERNATE AMENDMENT NO. 2
SECTION 104, SUBSECTION (e)
PL 99-662

(e) PROCEDURE FOR WORK DONE AFTER DATE OF ENACTMENT. The Secretary shall consider work carried out after the date of enactment of this Act by non-federal interests on a project for flood control under subsections (b) and (c) in accordance with the guidelines issued under subsection (a). The guidelines shall require prior approval by the Secretary of any flood control work carried out after the date of enactment of this Act which increases the total project cost of the Federal cost of such flood control work in order to be considered under this section, taking into account the economic and environmental feasibility of the project. The Secretary shall consider work carried out after the date of enactment of this Act by non-federal interests on a project for flood control under Subsections (b) and (c) in accordance with the guidelines issued under Section (a) without prior approval when such work does not increase the total project cost or the Federal costs of such project.

Mr. **Clement**. This hearing is adjourned.

[Whereupon, at 12:54 p.m., the subcommittee was adjourned, to reconvene at the call of the Chair.]

AMERICAN PUBLIC POWER ASSOCIATION
2301 M STREET NW WASHINGTON DC 20037 · 202/467-2900

Statement of the
AMERICAN PUBLIC POWER ASSOCIATION
Submitted to the
SUBCOMMITTEE ON WATER RESOURCES
HOUSE COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
on
Water Resources Development Act of 1990

March 23, 1990

The American Public Power Association believes this subcommittee should include in the Water Resources Development Act of 1990 procedural requirements to curb the exercise of excessive discretionary authority by the U.S. Army Corps of Engineers and to ensure that federal water projects constructed by the Corps are operated within the parameters established by Congress.

APPA is the national service organization representing more than 1,750 locally owned public power systems. Approximately 500 of these public power systems -- in addition to more than 600 rural electric cooperatives -- purchase power generated at federal multipurpose water projects, including 73 projects constructed and operated by the Corps of Engineers.

As this subcommittee knows, when new federal water projects are proposed, specific purposes are authorized and costs are assigned to each purpose. Some costs are reimbursable -- repaid by the beneficiary group -- while other costs are deemed non-reimbursable and the responsibility of the federal government. Federal power customers repay in full and with interest the federal investment in hydropower facilities. In fact, this repayment responsibility of power customers -- who repay, on the average more than 60 percent of the capital costs of constructing multipurpose water projects -- has been critical to making construction of these facilities economically feasible.

Federal power customers recognize that uses which were not anticipated and not authorized by Congress when these projects were first considered have developed over the years. Often these unauthorized uses -- such as recreation and water supply -- reflect growing social and economic values.

Federal power customers are willing to accommodate the objectives of these unauthorized project interests, provided this is achieved under equitable terms and through an open and deliberative process. As articulated in the attached report prepared in 1989 by an APPA task force in response to these emerging conflicts among project interests, federal power customers believe that beneficiaries of authorized project purposes should be fully compensated for the value of any benefits transferred to beneficiaries of new or expanded project uses. As this subcommittee is aware, this approach was successfully employed in resolving a conflict between water supply and power interests at Denison Dam and is being used as a model to resolve other disputes.

Unfortunately, this equitable approach to conflict resolution is being frustrated and undermined by the cavalier actions of the Corps of Engineers. In the Southeast, in the Missouri Basin region, and elsewhere, the Corps is seeking to manage federal water projects arbitrarily with seemingly unbounded discretion. The Corps' actions have resulted in:

- uncertainty for project users;

- inconsistencies in Corps policies and their implementation;

- unbalanced water management practices; and

- de facto reallocation of project reservoirs and benefits without congressional authorization or public involvement.

In the Southeast, the Corps arbitrarily has altered the operation of the Georgia-Alabama System projects to the detriment of beneficiaries of congressionally authorized purposes. Without congressional authorization or review, the Corps has added new categories of project beneficiaries and altered the operation of projects to advance unauthorized uses. Similiarly, the Corps' response to severe drought conditions in the Missouri Basin has triggered demands for a basin-wide review of the Corps' operating standards and suggests that certain operating decisions should be made only after consultation with all affected parties.

While the Corps should be allowed sufficient discretionary authority to respond to extreme emergency conditions and to make truly minor adjustments in response to changing hydrologic conditions, its authority is properly bounded by the congressional authorization for a project and the documents which support and implement that authorization. The authority to add new project purposes, reallocate project storage or benefits, or significantly alter project operations is vested exclusively in Congress.

APPA previously testified before this subcommittee to raise concerns about the Corps' use of excessive discretionary authority. In response to those concerns, Section 5 of the Water Resources Development Act of 1988 was enacted to provide project beneficiaries with certain due process rights prior to the taking of significant actions by the Corps. Unfortunately, the Corps has not lived up to the letter or spirit of this requirement.

APPA urges Congress to take additional steps to curb the Corps' arbitrary exercise of excessive discretion. Enhanced public procedures should be established to ensure that any changes in the operations of federal water projects are consistent with congressional intent and that all parties affected by the Corps' actions have a guaranteed opportunity to participate fully and formally in the Corps' decision-making process. The procedures also should guarantee that any reconsideration of project operations and purposes be pursued through an orderly, open, equitable process rather than being implemented by the Corps through administrative fiat. It is not APPA's intent or desire to micro-manage the activities of the Corps. However, it is essential that the Corps' activities and discrotionary authority remain within the boundaries set by Congress.

APPA looks forward to working with the subcommittee to resolve this vexing problem which frustrates proper management of the nation's water resources.

AMERICAN PUBLIC POWER ASSOCIATION
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RESOLUTION OF COMPETING USES AT FEDERAL WATER PROJECTS:
A Report of the APPA Task Force on Federal Water and Power Policies

Purpose

With increasing frequency, federal power customers are facing administrative and legislative efforts to resolve competing demands at federal water projects. Often the proposed resolution would harm federal power customers either through increased federal power rates or reduction in power benefits. In an effort to establish guidelines for resolving these competing demands, while protecting the short and long-term interests of federal power customers, the APPA Task Force on Water and Power Policies was established. This task force met with representatives of relevant federal agencies, congressional staff, and other project interests. This report presents guidelines proposed by the Task Force for resolving conflicts at federal water projects. The report addresses: new project purposes and the revision of existing project purposes; western irrigation assistance; federal water projects and the environment; and conservation. While these guidelines will help in the development of satisfactory conflict resolutions, individual conflicts will still be resolved on a case-by-case basis.

Introduction

Decades of federal water policy have been based upon the concept of comprehensive development -- harnessing the nation's rivers in a manner that promotes multiple-purpose use -- at specific projects, within entire river basins, and beyond. If development of these national resources were left to private interests, it was argued, only the profitable ventures would be pursued, and the unprofitable goals -- such as flood protection -- would be left unmet.

Consumer-owned utilities -- public power systems and rural electric cooperatives -- entered into a partnership with state and local economic interests and the federal government to provide the financial and political support necessary for meeting this goal of comprehensive development. Under the terms of this partnership, consumer-owned utilities receive a first right to purchase, at cost-based rates, the power generated at federal multipurpose water projects that is beyond that needed for actual project operation. This federally generated power is an integral part of the long-term power supply plans of these consumer-owned utilities.

In return, these federal power customers are obligated to repay all operation, maintenance and replacement (O,M&R) costs, and repay with interest the federal cost of constructing these power facilities. According to a 1984 Department of Energy study, federal power customers repay, on a national average, more than 60 percent of the total capital costs of constructing federal multipurpose water projects, and more than 80 percent of reimburseable project costs. In addition, in the 17 western states in which the Bureau of Reclamation operates, power customers assist in the repayment of other specific, statutorily assigned, non-power costs.

This partnership has been a national success that must continue. The financial participation of consumer-owned utilities made these projects economically feasible and enabled the nation to meet the goal of comprehensive development -- managing the nation's waterways to provide flood protection, navigation, municipal and industrial (M&I) water, irrigation, power production, fish and wildlife protection, and recreational opportunities.

These multipurpose projects have met -- and continue to meet -- their original stated purposes, e.g. cities and farms are protected from flooding; an elaborate inland waterway system of transportation exists; and federal hydropower is an important part of the nation's energy mix. But today these achievements are sometimes forgotten, while at the same time, new objectives for these federal facilities are being pursued. Once constructed, the reservoirs and rivers controlled by these dams have been used for additional purposes -- uses not considered when these projects were authorized and constructed. Project reservoirs are used for boating and fishing; stored water is withdrawn for M&I water supply; scheduled dam releases have spawned commercial rafting ventures; and controlled flows have created new opportunities for fish and wildlife management.

In many cases, these unanticipated project uses represent emerging societal values -- values that are driven by the changing needs and priorities of the country. Changes in demographic patterns and economic interests advance objectives that may be in conflict with existing federal natural resource policies: competing demands between rural and urban interests for available water supplies; an expanding conservation ethic, with increased value placed on the preservation of limited natural resources; and, an increasing importance of tourist and service industries as the economic base of natural resource rich states.

With increasing frequency, advocates of interests not represented in original project authorizations are seeking changes in the operation, use and management of federal water projects in order to secure or enhance their interests. Through the process of comprehensive development, the water stored at these facilities has been allocated fully among existing authorized uses. Consequently, in most cases, the additional demands placed on these resources by advocates of new interests cannot be met without reducing the benefits currently received by users of authorized project purposes.

Federal power customers recognize the emergence of new societal goals and will participate constructively in reconciling the conflicting demands of original and new project interests. Power customers believe that new project interests must recognize the investment and concerns of authorized project beneficiaries, and must provide sufficient financial assistance to cover the resulting costs and losses of benefits. Any proposed resolution must be consistent with the primary policy that fostered construction of these projects: comprehensive development.

Federal hydropower is an important national resource as well as an important resource for federal power customers. On a national level, hydropower generation contributes to strategies to deal with acid rain, control the "greenhouse effect", increase national energy independence, promote competition and diversity in the electric utility industry, and improve international economic competitiveness. On the local level, continued access to federal hydropower contributes to stable electric rates, local economic development, and predictable utility planning. These values must be continually stressed in order to increase public appreciation of the current operation and management practices of the federal water and power program.

The objectives underlying federal power policies were sound when initiated and remain so today. Any effort to meet new objectives in the management and use of federal water projects must recognize the value of existing federal policies.

New Project Purposes and Revision of Existing Purposes

Federal water projects are authorized to meet distinct project purposes and the costs of constructing the projects are assigned among these purposes. Existing beneficiaries of authorized project purposes should not be asked to subsidize the addition of new or expanded project purposes that reallocate project benefits. If benefits are transferred from one project use to another, so too should cost responsibility be transferred and lost benefits compensated. While the determination of appropriate compensation is dependent on the value of the resource and the extent and nature of the proposed operational changes, in general, any authorization of a new project purpose should hold power customers -- and other beneficiaries of authorized project purposes -- harmless.

Even minor changes in project operation can have substantial impact on the value of the resource for power generation. Project capacity, the "firmness" of the power, timing of generation, and availability of nonfirm power all affect the value of the resource and all can be affected by apparently minor changes in project operation. Therefore, new project beneficiaries must "buy into" an existing project by compensating existing authorized beneficiaries for benefits foregone to ensure prioritization of benefits in a fiscally responsible manner. Under this approach, only those operational changes that provide cost-effective benefits will be pursued.

New project beneficiaries should pay for directly related costs, provide compensation for lost benefits, and share in joint-use and OM&R costs. Necessary financing could be obtained through a variety of means, including project-specific user fees, special purpose district assessments, or imposition of a national value added tax on associated goods, such as recreational services and equipment.

Prior to any congressional authorization of new project purposes, the impact of such a change should be fully studied, the new project purposes should be subject to a congressionally authorized, federally financed cost-benefit analysis, and any change should require appropriate compensation for any loss or transfer of benefits.

Further, designation of new project purposes should not be pursued on a generic basis. For instance, recreation advocates have attempted to interpret the Federal Water Project Recreation Act of 1965 to establish generic authorization of recreation as a project purpose at all Corps projects. Contrary to this interpretation, only project-specific authorizations can assign project purpose status. Absent specific congressional designation, unauthorized project purposes can be promoted only to the extent that authorized purposes are not adversely impacted. Only case-by-case designation of new project purposes can ensure that changes in project operation are warranted, appropriate, cost-effective, do not violate contracts and established rights, and are consistent with long term power planning.

Western Irrigation Assistance

Under existing reclamation law, federal power customers in 17 western states pay the cost of federal power facilities plus those costs of federal irrigation projects that are deemed to be beyond the irrigators' "ability to pay." Under this policy, power customers have assumed considerable repayment responsibility -- as much as 98 percent of the cost of federal irrigation projects. This policy of irrigation assistance has assured the revenues needed to repay the construction costs of numerous irrigation projects throughout the West. There are also many authorized irrigation projects that have not yet been constructed and may never meet tests of feasibility.

Federal power customers entered into a partnership with the federal government and local irrigation districts in order to assure repayment of these federal multipurpose reclamation projects, accepting a considerable financial responsibility in order to assist the nation in building the infrastructure needed to develop a rich and diversified agricultural sector. Federal power customers have honored their commitment and will honor existing financial commitments to repay completed irrigation projects, provided that no changes are made in the terms of repayment. However, unilateral, after-the-fact, policy changes in irrigation policies that affect federal power rates and project operations are not equitable.

Federal power customers will continue to honor this historical financial commitment for authorized but as yet unconstructed irrigation projects under traditional methods of determining project feasibility, financing, and repayment. But if these traditional methodologies are to be changed, then a new compact for financing irrigation projects may be needed. Federal power customers may be willing to consider, on a case-by-case basis, a new compact for construction of fiscally sound, environmentally acceptable, previously authorized irrigation projects under non-traditional methods of financing, provided that power customers receive proportionate benefits and have a voice in determining the terms of financial assistance. Any power customer financial assistance must be predicated on least-cost construction plans and a substantial level of local, non-power, cost-sharing.

In certain instances where currently authorized federal irrigation projects have not been constructed, local interests may seek to substitute new water projects for authorized, unconstructed irrigation projects in order to put to beneficial use the associated water in a manner consistent with applicable water law. In such instances, a new federal statutory compact may be needed. Federal power customers may provide assistance under a new compact provided that water projects constructed under any new compact are fiscally sound, environmentally acceptable, and predicated on least-cost construction plans. Further, other project beneficiaries must provide a substantial level of local cost-sharing, and power customers must receive proportionate benefits.

The Environment

In some instances, development of the nation's rivers has resulted in environmental costs, such as depletion of fish population and reduction in wildlife habitat. In other instances, project construction has created environmental benefits, including an increase in the number of fish and improvement of wildlife habitat. Increasingly, environmental advocates, as well as recreationists and commercial recreation operators, are seeking changes in project operations to promote their interests. Some of the proposed changes constitute environmental mitigation efforts intended to rectify the impacts of project development. Other proposed changes are enhancement measures, designed to create or augment benefits at those projects beyond those that existed prior to construction of the dam. In determining the financial responsibility of federal power customers, the distinction between environmental mitigation and enhancement is critical.

Environmental mitigation encompasses those efforts designed to offset environmental impacts resulting from construction of these federal projects. Efforts to improve conditions beyond those that existed prior to construction of these facilities -- or to improve environmental conditions or opportunities that were created by construction of the facility -- are enhancement rather than mitigation measures.

A. Environmental Mitigation

Federal water projects were planned, constructed and operated by the federal government for broad public purposes with the support of local economic interests, including federal power customers. All project beneficiaries, and the public at large, share responsibility for the environmental impact of these projects. Therefore, it is appropriate for all beneficiaries, including the general public, to share equitably some costs of appropriate mitigation efforts.

Factors to be considered in mitigation efforts should include:

- Development of benchmarks for pre-construction environmental conditions which can be used to distinguish mitigation and enhancement efforts and determine progress in achieving mitigation goals.
- Establishment of specific biological goals and priorities that are economically reasonable. These goals and priorities should be pursued through least-cost means. In this fashion, mitigation dollars will go farther and will be expended in a manner that achieves the greatest possible good.
- Recognition that adverse actions beyond the scope of the project --

or the controls of project beneficiaries -- may affect successful mitigation efforts and such adverse activities should be considered in setting responsible financial limits. For instance, offshore commercial fishing operations in the Pacific Northwest may undercut salmon restoration efforts in the Columbia River Basin that are funded by power customers.

- Crediting of project beneficiaries for environmental benefits that are created by project construction and operation. For instance, the responsibility of project customers for mitigation expenses should be reduced if existing project operations create certain environmental opportunities that did not exist prior to construction of the facility.

B. Environmental Enhancement

Efforts may be advocated to enhance the environment to a state that did not exist prior to construction of these facilities. Similarly, initiatives may be advocated to enhance recreational and wildlife management conditions and opportunities that were created by construction of these federal water projects. While these enhancement efforts may be appropriate, it is inappropriate to impose financial responsibility for these enhancement programs on power customers. If there are to be enhanced environmental and commercial recreational opportunities at federal water projects, then the financial responsibility appropriately rests with those that will directly benefit from these enhanced opportunities as well as the public at large.

Conservation

A. Federal Power Conservation

Federal power customers recognize the value of federal hydropower. This resource plays an important role in providing reliable, affordable power to electric consumers, and displaces the use of more expensive, non-renewable resources. But hydropower is a limited resource. While some upgrades and additions can increase federal hydropower generation, the majority of large-scale domestic hydroprojects have long since been developed.

Given the limited nature of this valuable resource, federal power customers must support the efficient use of federal hydropower. Conservation, load management, and energy efficiency programs are common practices among federal power customers, and many of these programs are conducted in coordination with the federal power marketing agencies. While these efforts have been widely successful, federal power customers should continue to pursue appropriate, cost-effective programs to improve end-use and system efficiencies. However, conservation cannot be pursued blindly; programs must be tailored to best meet the needs of individual utilities, communities and geographic locales. Differences in regional character, system supply and demand, and consumer needs must all be balanced in designing appropriate and cost-effective conservation programs. However, diverse options -- ranging from line-loss improvements to demand-side planning -- are available.

Federal power customers will continue their long-standing practice of efficient resource management. In cooperation with the federal power marketing agencies, federal power customers will promote end-use and system efficiency programs that increase the value of federal hydropower to their consumer-owners.

B. End-Use Water Conservation

Efforts to date to resolve competing uses at federal water projects have focused primarily on the reallocation of stored water, or changes in the release pattern of stored water, in order to meet new or expanded project purposes. However, it is possible that aggressive end-use water conservation measures could create "new" supplies of water that could be used to meet these new or expanded needs.

End-use water conservation practices should not -- and need not -- be designed to reduce the benefits currently received by irrigators and M&I water users. Rather, an appropriate water conservation policy would be designed to ensure that all, or a great percentage of, water is actually applied to the intended use and not wasted due to leaks, spills, inadequate or non-existent measurement of water use, or evaporation. For instance, although irrigation efficiency has improved in some areas, substantial improvements are still possible through various techniques, including the lining of earthen canals and leveling of irrigated fields. According to U.S. Soil Conservation Service data, more efficient irrigation practices could save as much as 24 million acre feet per year nationwide. Similarly, studies by the California Department of Water Resources estimates that a state program for installation of low-flow toilets could save 100,000 acre feet per year.

Federal power customers strongly encourage the implementation of appropriate end-use water conservation programs and practices. Prior to any reallocation of stored project water for consumptive use, federal power customers believe that the intended beneficiary should be required to make a positive showing that the water is needed after the implementation of apropriate, cost-effective, end-use water management practices.

Conclusion

As conflicts arise, federal power customers will continue to seek resolutions that mitigate the loss of power benefits. The inclusion of impact and cost-benefit analysis, cost-sharing, and compensation will ensure that the level of new benefits being sought is economically sound. As conflicts arise and reconciliation efforts are initiated, power customers are entitled to seek offsets for any losses resulting from the acceptance of new obligations. Examples of the positive policy changes that would assist power customers in meeting these new obligations include increased resource certainty, enhanced federal transmission service, and resource firming.

Federal power customers are willing to work with other interests in order to shape federal water and power policies to meet enduring societal objectives. However, any effort to adjust federal water project operations must not take place in a vacuum. Any policy adjustment must take a long range perspective that: recognizes existing investments and commitments; considers the multitude of national goals; is economically and environmentally sound; and assigns appropriate financial responsibility consistent with the benefits received. Only in this manner can the overriding mandate of comprehensive development be kept current with our national goals and objectives.

C, aK

The Izaak Walton League of America
INCORPORATED
DEFENDERS OF SOIL, WOODS, WATERS AND WILDLIFE

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April 30, 1990

STATEMENT OF
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to

Subcommittee on Water Resources
Committee on Public Works and Transportation
U. S. House of Representatives

Attention: The Hon. Henry J. Nowak

Subject:
Flood Control, Fort Wayne (Indiana) and Vicinity

The Army Corps of Engineers proposes to construct, renovate and heighten a system of dikes and levees along the St. Marys, St. Joseph and Maumee Rivers in Fort Wayne, Indiana, for the purpose of alleviating flood damages. Two versions of a **Final Feasibility Report/Final Environmental Impact Statement** have been published for this project--the first in September, 1987, and the second in April, 1988. While generally similar in nature, they are substantially different, in that the 1987 document proposes the required National Economical Development design for a **200-year** flood event, while the 1988 version would alter this to a **100-year** flood event protection plan.

The only substantial reason given for this deviation from NED is that these diking plans would cause **induced** increases in flood crests, because flood water between the improved dikes would be further restricted; and this would cause damage backup into areas not protected by the dikes and levees. The extent of the effects upon the floodcrests from the 200-year plan were estimated at from 0.1 to 0.5 feet. A 100-year diking plan would have lesser effect. However, it is now believed that the Corps has recomputed these induced effects and finds them to be **negligible.** Deviation from NED requires approval of the Secretary.

In developing plans such as this, the Corps is required to consider **Cumulative Impacts** of the projects. **Cumulative Impacts** are set forth at 40 CFR Ch. V, §1508.7. This required procedure has not been properly accomplished in the Corps' review; and the project should not be authorized until it has been. For example, the State of Indiana has granted several floodway filling permits affecting the capacity of the Maumee River to efficiently discharge floodwaters. One of these is immediately downstream of the project where a large area is being filled with construction rubble. Another is a pending river-widening plan by local sponsors. The Corps does mention this project at Page 54 in its

April, 1988, document, but only as an increment to the diking plan for alleviation of induced diking effects; and it finds the costs of the river widening exceeds its benefits. The Corps applies a "sensitivity analysis" and hypothesizes a river widening of just 25 feet would eliminate the induced effect. Nowhere does it evaluate the flood reduction effects of a 150-feet width (now 250 feet in the latest version of the river widening). **(Exhibit A) (Exhibit B)**

In fact, it is our conclusion that **MANY OF THE SAME BENEFITS FOR FLOOD REDUCTION DAMAGES ARE BEING CLAIMED BY BOTH PROJECTS.** This is an entirely germane area of inquiry for you to make, inasmuch as the same Corps District (Detroit) now proposing the diking plan is also considering a permit for the river widening. Benefits to the public are among the parameters **required** to be evaluated by the Corps in deciding whether to issue this permit. The Corps has insisted that the widening prject is purely a local plan, and has thus far declined to prepare an Environmental Impact Statement, or to hold a public hearing on it. But very clearly there is a close functional relationship. The independent studies of the local river widening project (March, 1986 and July, 1987) for the Allen County Commissioners are even more obscure in this respect, in that they do not even mention the Corps diking plan in claiming a benefit to cost ratio of 2.39:1 for the river widening. **But very plainly the savings produced by the diking cannot also be claimed for the river widening.**

Moreover, with respect to the Corps' brief discussion of the river widening, as noted above, it appears to accept the claim of 1.3 feet of flood crest reduction for the locally-proposed river widening. In the only independent, professional review of that claim--for Stockbridge Audubon Society and the Indiana Izaak Walton League--Dr. Aldo Giorgini, an internationally recognized authority in hydrology and computer modeling, concludes that this benefit claim is exaggerated. **(Exhibits C and D).**

Among the other reasons you should consider the river-widening germane to your deliberations is that there is every probability that the local sponsors may ask for a local cost-share credit for this $9-million project. If as we believe, both projects are claiming the same benefits, though their combined costs exceed $23,000,000, there is a serious question of the quality of the Federal investment. You should also consider the $11-million in Federal costs by the Federal Emergency Management Agency between the floods of 1982 and 1985. For example, the flood of 1982 reportedly produced $50-million in damages, while the flood of 1985--the third highest on record--produced only $7-million in damages. Of the $7-million, $3.5-million was attributed to properties now scheduled and partially funded for **clearance** and rededication as "Headwaters Park". Clearly the FEMA flood control projects have contributed to flood protection; and it is not unreasonable to conclude that a "1982 flood" today would not cause the level of damage it did when in occurred.

It should be noted that we are opposed to the river widening project, which is voluably stated throughout our testimony on flood control in all statements over the past six years. We have been joined in this position energetically by the U. S. Fish and Wildlife Service, typically in a letter to the Corps of April 11, 1990 **(Exhibit E).** While we would be very pleased to provide all of the reasons for this opposition, which is joined by thousands of petitioners and organizations statements we will not burden this statement with this at present, except through brief reference to one news report **(Exhibit F)**, and the text and signatures of a single petition sheet signed by thousands throughout the State of Indiana and elsewhere. **(Exhibit G).**

Finally for purposes of this statement, we call to your attention a news report we find especially disturbing. This February 22, 1990 report **(Exhibit H)** announces that Fort Wayne Mayor Paul Helmke, who appeared recently before your committee urging authorization of the Corps diking plan, has already relaxed development restrictions upon certain flood plains of the area**--even before either the diking plan or the river widening are begun.** It should be noted that a great deal of the Fort Wayne area's persistent flooding problems are derived directly from this kind of reckless policy, which over the years has exposed more and more residents of this area to increasing flood exposure. The news report is accurate, and we have the official city documentation which stands behing the press report. We state unequivocally here that the elements of local cooperation included in the Corps' April, 1988, EIS, are totally and absolutely insufficient with respect to flood plain restrictions, and will lead to the same business-as-usual development of areas that are either now exposed to flooding, or which will be in the future. It must be emphasized that there are no effective controls of flood plain uses in the larger Maumee River Basin of Indiana. Fort Wayne itself is a very small part of this basin, but is the point of convergence of the St. Marys (flowing from the southeast and originating in Ohio) and the St. Joseph (flowing from the northeast and originating in Michigan) which form the Maumee River at Fort Wayne, thence discharging eastward to Lake Erie. The ancient and discredited notion that Fort Wayne can defeat its flooding problems by mounting the barricades at the city limits remains as much in force today as it has throughout this century. The Congress should authorize no flood control project for this area until firm flood plain restrications and restoration programs are enacted and enforced, at least in the Indiana portion of the basin. To do otherwise would be a profound waste of Federal money. Because of historic and on-going flood plain development, areas which once could be certified as safe due to flood control works have time and again proved exposed because hydrologic conditions have worsened almost as soon as the ink dries on the acts of authorization. **Only strength and firm demands from the Congress hold the slightest promise of reform and permanent protection from floods. Fort Wayne offers an outstanding case in point to apply that Congressional determination.**

Thank you and please contact us if additional questions occur, or if we may provide you with direct access to our files and official documentation we have.

Respectfully,

Thomas Dustin

Thomas E. Dustin

c: The Hon. Jill Long
The Hon. Richard Lugar
U. S. Fish and Wildlife Service
Senate Committee on Environment and Public Works
Edward R. Osann, NWF
David Dickson, IWLA
Terry McCloskey, Indiana IWLA

Exhibit A

0 CFR Ch. V (7-1-88 Edition) Council on Environmental Quality § 1508.9

§ 1508.6 Council.

"Council" means the Council on Environmental Quality established by Title II of the Act.

§ 1508.7 Cumulative impact.

"Cumulative impact" is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Exhibit B

Final Feasibility Report

Final Environmental Impact Statement

Appendix A: Correspondence and Coordination

September 1987 · REVISED APRIL 1988

US Army Corps of Engineers
Detroit District

Fort Wayne and Vicinity, Indiana

Flood Control Study

e. Limited Dredging of the Maumee River - A feasibility study was completed by the County in March 1986, which evaluated widening of the Maumee River's north overbank by a width of 150 feet. The excavation would be for 4 miles immediately downstream of Anthony Boulevard. This alternative, for the 100-year flood, was found to reduce the water surface profile a maximum of 1.3 feet at Anthony Boulevard, with the effects extending upstream on the St. Joseph and St. Marys Rivers. A sensitivity analysis was completed by the Detroit District to evaluate water surface reductions at various dredging widths. Excavating the north overbank to a width of 25 feet would reduce the flood levels sufficiently to eliminate induced damages resulting from the selected plan. Utilizing the costs presented in the County report and allowing for the necessary reductions due to decreased excavation, the average annual cost of limited dredging is estimated at over $380,000, including the required mitigation costs. The costs for this plan exceed the benefits that could be generated.

EXHIBIT C-

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PRELIMINARY REPORT
MAUMEE RIVER WIDENING

Prepared for:
Stockbridge Audubon Society
Indiana Izaak Walton League

The first purpose of the study, object of this report, is to estimate the average value of the roughness coefficients in the channel and in the overbanks of the Maumee River, from the cross section Xsec=129.06, just upstream of Landin Road Bridge, to cross section Xsec=134.93, just downstream of Anthony Boulevard Bridge. This reach of the Maumee River is planned to be widened in order to reduce the damages caused by flooding. The estimate of the reduction of the 100-year flood crest caused by the widening (second purpose of the study here reported) depends on the values of the roughness coefficients. An incorrect estimate of these may affect the estimate of the flood crest reduction.

Definition of the Model

The HEC-2 model used in this study is the model contained in the files
TURCOR.DAT, for the existing conditions of the reach,
ISLAND.DAT, for the modified conditions of the reach.
These files have been developed in time by IDNR, Sept 83; Harza, May 86; Turnbell, Aug 87; CBBEL, Dec 87. Both HEC-2 input files are for multiprofile runs. For the present study it has been deemed expedient to limit the runs to one profile, the profile of the Mar 82 flood (Q=26,000; Water surface elevation at Xsec=129.06 equal to 756.00 ft.) Exception made for the additional correction of minor errors in the original files, the files so obtained, named
TURCOR-A.DAT
ISLAND-A.DAT,
are identical to the original files.

Determination of the Roughness Coefficients using TURCOR-A.DAT

The distribution of the Manning's n coefficients along the reach of interest is shown in Figure 1. With such distribution of roughness coefficients, starting with a water surface elevation at Xsec=129.06 given as WSEL129=756.00ft, with the Mar 82 flood discharge measured at Xsec=129.06 given as Q129=26,000cfs, one obtains a water surface elevation at Xsec=134.93 equal to WSEL135=756.06. This figure coincides with the measurements of the high water marks at Xsec=134.93 of the Mar 82 flood. This result is not coincidental: in fact the distribution of the values of Manning's n presented in Figure 1 has been induced from those data. But other distributions of the roughness coefficients can be found with the same values of the above data, which, for reference ease, are rewritten below

Q129=26,000 cfs WSEL129=756.00 ft WSEL135=756.06 ft.

If we simplify the problem by assuming that, in the reach under study, an average value NCH of n for the channel, and an average value NOB of n for the overbanks represent with sufficient accuracy the backwater profile, then we can find an infinite number of pairs (NCH,NOB) that fit the prescribed condition. In fact, with the help of a HEC-2 input file derived from TURCOR-A.DAT the following partial list has been obtained

NCH	NOB
.025	.880
.031	.178
.035	.118
.040	.085
.0426	.076
.050	.056
.05325	.05325.

The case corresponding to the INDR file TURCOR.DAT, illustrated in Figure 1, corresponds to the pair NCH=.0426, NOB=.076.

The choice among the above pairs is not to be left to chance, albeit in normal circumstances for calculation of backwater profiles errors of 20% in the roughness coefficients do not affect very much the results (recall that all the above pairs yield the same end points of the profile in the reach!) Errors in the pair of values can yield large profile errors instead in the case of channel modification. The estimation of the correct values of NCH, NOB must be made with measurements and not with inspection only.

The measurements of the pair (NCH,NOB) should start with the estimate of the channel's roughness NCH. In order to measure NCH, low water data (data of flows occupying the channel alone) are needed. Specifically:

WSEL129	The water surface elevation at Xsec=129.06,
WSEL135	The water surface elevation at Xsec=134.93,
Q129	The discharge at Xsec=129.06,
Q135	The discharge at Xsec=134.93.

The two discharges specified above are needed when, as in this case, intermediate discharges into the river reach occur between the two cross sections of interest. In this case the differential discharge Q129-Q135 flows into the reach at Xsec=134.15, where a sewage disposal outlet has affected the data, obtained from the USGS, Indianapolis. The data, and the results of their use are

Q129	WSEL129	Q135	WSEL129	NCH
480	728.03	382	731.50	.031
197	727.18	136	730.86	.044
146	726.97	43	730.07	.043
84.4	726.66	43.5	730.03	.072
63.2	726.52	23.9	729.92	.068

It is to be noticed that the value of the channel roughness tends to increase as the discharge decreases. This is not surprising and it can be demonstrated analytically. If the channel continued beyond the banks, NCH would achieve an asymptotic value of .025. In the present case, since the discharge of 480 cfs is close to the maximum that would fill the channel, it is safe to assume that .031 is the lowest value that NCH would assume.

The actual choice of the value of NCH would require detailed study of all the discharges from Q129=480cfs to Q129=26,000. This has not been done in this study for lack of time and due to the preliminary nature of the report. The choice will be made by comparing some of the pairs NCH, NOB already presented:

NCH	NOB
.031	.178
.035	.118
.040	.085
.0426	.076

Albeit the low water study points at an NCH value of .031, since to this value corresponds the value .178 of NOB (which is definitely excessive for the reach under study) the values

NCH=.035 NOB=.118

have been chosen as representative of the roughness distribution of the reach under study. More detailed analysis of the roughness distribution (a cross section by cross section evaluation) seems unwarranted for the scope of the study. In fact a more detailed study should include reliability analysis of the data and end with confidence level statements on the roughness estimates.

This study's conclusion is that there is reasonable doubt that the distribution of roughness coefficients presented in Figure 1 be correct, and so is its longitudinal average

NCH=.0426 NOB=.076.

The values that this study propose

NCH=.035 NOB=.118

are more likely to be correct, because of the above arguments.

Determination of Flood Crest Reduction Caused by the River Widening

The model of the Maumee River bed modifications is contained in the IDNR HEC-2 input file ISLAND.DAT, which has been amended, for the same reasons explained in the case of the TURCOR.DAT file, into the file ISLAND-A.DAT, a one profile run file for the Mar 82 flood. This section of this report concerns itself with the influence of the roughness coefficients on the flood crest reduction, which we will call CRED. The complete geometry of the modification is left intact. The actual distribution of the roughness coefficients according to IDNR is presented in Figure 2. Comparison of Figure 2 with Figure 1 shows that the modification affect mainly the overbanks. The water surface elevation at Xsec=134.93 is 754.74. This means that the flood crest reduction caused by the river bed modification, with the roughness coefficients of Figure 1, is CRED=1.27 ft = 15.24".

In order to consider the several alternative solutions that have been calculated, it is convenient to calculate the equivalent longitudinally averaged values of "n" in the channel and in the overbanks. By assuming that NCH= .0426, since the channel's roughness has not been modified, one can find a value of NOB= .065. It is easy to see why the value of NOB has gone from .076 to .065 : the island creates a second channel and furthermore it is assumed that the north overbank is mowed regularly, deacreasing its roughness. We will call the state represented by the coeficients

NCH= .0426 NOB= .076

the "natural state" and the state represented by

NCH= .0426 NOB= .065

as the "modified state". Notice that the modified state contains a reduction of NOB to 85% of the "natural state". We will keep the ratio the same when we consider other values of NCH other than .0426 for the "modified state".

Some of the possible values of CRED for the "natural state" are presented below

	NCH	NOB	WSEL135	CRED
THIS ESTIMATE	.031	.178	755.62	.44ft=5.3"
	.035	.118	755.41	.65ft=7.8"
	.040	.085	755.23	.83ft=10.0"
	.0426	.076	755.18	.88ft=10.6"
	.045	.065	755.08	.98ft=11.8"

Some possible values of CRED for the "modified state" are presented below

	NCH	NOB	WSEL135	CRED
	.031	.152	755.36	.70ft= 8.4"
	.035	.101	755.10	.96ft=11.52"
	.040	.073	754.87	1.19ft=14.28"
IDNR ESTIMATE	.0426	.065	754.79	1.27ft=15.24"
	.045	.058	754.65	1.41ft=16.92"

The two sequences of results are presented in Figure 3. The "natural state" sequence presents the possible solutions if the state of nature takes over the modified river bed. The "modified state" sequence presents the possible solutions if the mantained overbank policy is kept. The extreme cases of the situation are,

	CRED
According to IDNR	
Crest reduction with mantained overbanks	1.27 ft
Crest reduction with "natural state"	0.88 ft
According to this study	
Crest reduction with mantained overbanks	0.96 ft
Crest reduction with "natural state"	0.65 ft

Determination of Flood Crest Reduction with Limited Improvement (from ANTHONY to US30)

The "limited improvement" attribute refers to the case in which improvement is performed only between Anthony Boulevard Bridge and U.S.30 Bridge (actually Xsec = 133.40 and Xsec = 134.31). The rationale of this research lies in the fact that, for equal excavation per cross area section, the first mile will achive more crest reduction than the last mile. A new input file has been generated with

Xsec=129.06 to Xsec=133.40 from TURCOR-A.DAT
Xse~=133.42 to Xsec=134.93 from ISLAND-A.DAT.

This file has been called ISLAND-Y.DAT. This input file yields WSEL135=755.40, with a flood crest reduction of 0.66 ft, compared to the 1.27 ft of the complete project, that is 52% of the flood crest reduction is obtained in the first 0.89 miles, this a reduction of 0.74 ft/mile. As a comparison, the remaining 0.61 ft of reduction due to the reach downstream of the golf course, which is 1.74 miles long and involves much more excavation, has an average reduction of 0.35 ft/mile. This specific reduction is less than one half than the specific reduction achieved in the upstreammost excavation.

If we complete the study by using the longitudinal averaged roughness coefficients with "natural state" or "modified state" attributes, we obtain:

For "natural state" conditions

	NCH	NOB	WSEL135	CRED	
THIS ESTIMATE	.031	.178	755.83	.23	
	.035	.118	755.75	.32	48% tot. red.
	.040	.085	755.66	.40	
	.0426	.076	755.65	.41	
	.045	.065	755.46	.79	

For 'modified state' conditions

	NCH	NOB	WSEL135	CRED	
	.031	.152	755.60	.46	
	.036	.101	755.47	.59	
	.040	.073	755.32	.74	
ESTIMATE WITH IDNR ASSUMPTIONS	.0426	.066	755.27	.79	62% tot. red.
	.045	.058	755.17	.86	

The safest statement that could be made is that roughly 80% of the flood crest reduction comes from the excavation downstream of the Anthony Boulevard Bridge which extends for 0.89 miles (against the 1.74 miles of the excavation downstream of the golf course.)

Report prepared by : Aldo Giorgini, Ding, PhD.
Date: 23 March 1990

Aldo Giorgini

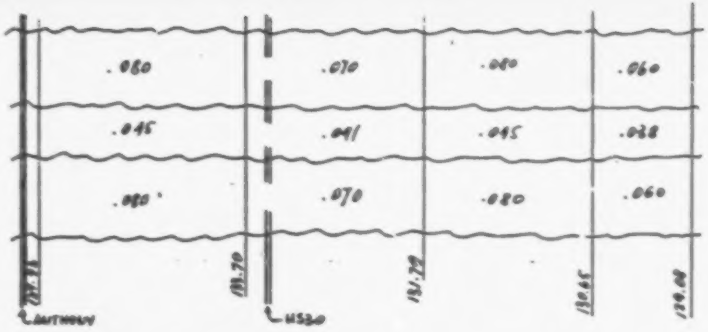
VITA

Name:
Aldo Giorgini

Title:
Associate Professor
School of Civil Engineering
PURDUE UNIVERSITY
West Lafayette, IN 47907

Education:
Ding, Politecnico di Torino
TURIN, ITALY
PhD, Colorado State University
Fort Collins, Colorado

Pertinent Courses taught:
Hydraulics
Advanced Hydraulics
Open Channel Hydraulics
Computational River Hydraulics
River Hydraulics with HEC-2
Watershed Hydrology with HEC-1



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℄ ANTHONY
℄ US 30

FIGURE 1

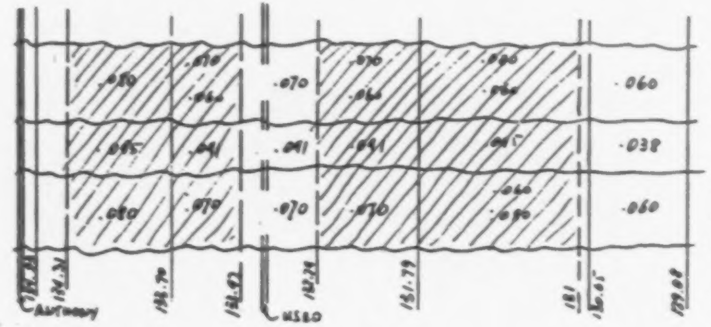

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FIGURE 2

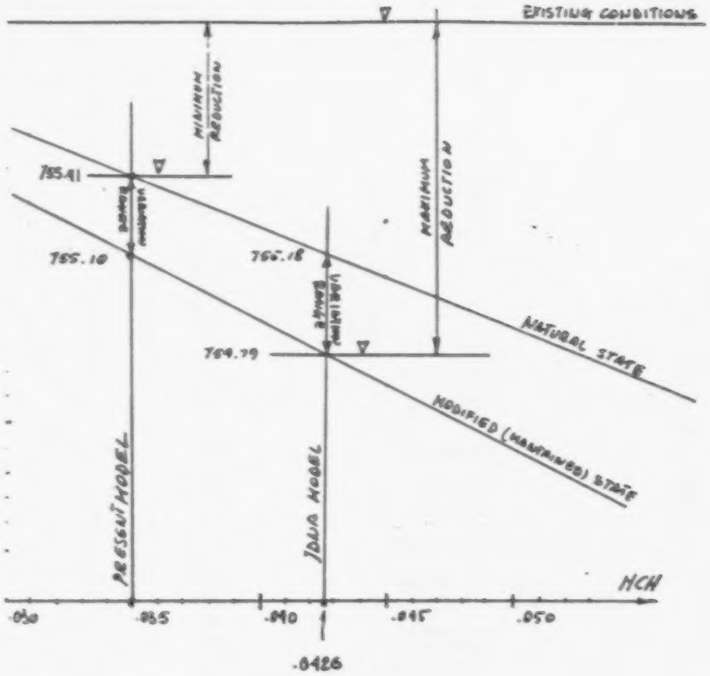

FIGURE 3

FLOOD CREST REDUCTION VS. NCH FOR "NATURAL STATE" AND FOR "MODIFIED STATE"

Exhibit D

EDITORIALS

The Journal-Gazette

Saturday
April 21, 1990

Richard G. Inskeep
President and Publisher

Craig Klugman
Editor

Sherry Skufca
Managing Editor

Larry Hayes
Editorial Page Editor

Don't dismiss flood study

Local officials have reason to be concerned about the 26-foot-long list of signatures of people against the Maumee River widening project. It's a clear sign that more than a handful of environmentalists are opposed to the plan.

But what should be of equal concern to officials is research done by a Purdue University professor that appears to show the river widening project won't provide the benefits its supporters claim.

In a study for the Stockbridge Audubon Society and the Indiana Izaak Walton League, hydrologist Alto Giorgini found that the river widening project wouldn't lower floodwaters as much as supporters have said. Using computer models, he estimated flood river levels would be reduced between .65 and .96 feet, not between .88 and 1.27 feet, as the county's experts have estimated.

Giorgini also has found the river widening project would vary in its effectiveness. Through computer modeling, he determined that 50 percent of the flood level reduction would come from about a third of the widened area. He estimated the first .89 miles of widening — an area starting downstream from the bridge at Anthony Boulevard to the bridge at Coliseum Boulevard — would reduce the floodwaters as much as the other 1.74 miles to be widened.

Some might dismiss this study because it was prepared for groups that oppose the river widening. But Giorgini is no flake. He is a respected authority on hydrological computer modeling, and the state has used him as an expert witness to testify on an Ohio River border dispute with Kentucky.

Giorgini's study is not conclusive. But he has done enough research to know that the original estimates of flood reduction should have been based on more research. Specifically, he says the river's roughness was not adequately taken into account by those who designed the river widening project.

The county has shown little interest in pursuing Giorgini's findings. But examining them appears to be the only responsible thing to do. If his figures are correct, they could affect the diking project as well as the river widening project.

A copy of Giorgini's findings has been sent to the Army Corps of Engineers, which has not yet granted a permit for the river widening. It would appear that the corps would want to closely examine Giorgini's study. If his findings are accurate, they would surely have an impact on the corps' analysis of the project's worth. And state and local officials also should give the study a close look: Before taxpayers spend millions on a flood control project, there should be no doubt that the project will work.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
BLOOMINGTON FIELD OFFICE (ES)
718 North Walnut Street
Bloomington, Indiana 47401
(812)334-4261

IN REPLY REFER TO

April 11, 1990

Exhibit E

Colonel John D. Glass
U.S. Army Engineer District
Detroit
P.O. Box 1027
Detroit, Michigan 48231

Dear Colonel Glass:

This responds to a request from Mr. Wally Gauthier of your staff, for comments on materials sent to our office on April 10, 1990, concerning the Allen County Board of Commissioners application for a Department of the Army Permit for the Maumee River widening project in Fort Wayne, Allen County, India . Material that Mr. Gauthier forwarded to us included the applicant's summary of expected wetland functions and values, rationale of wetland plantings, proposed preservation zone for forest development, and your March 28, 1990 letter to Mr. Jack Worthman regarding mitigation requirements.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U.S. Fish and Wildlife Service's Mitigation Policy.

The U.S. Fish and Wildlife Service (Service) is in complete agreement with the statements and recommendations you made in your aforementioned March 28, 1990 letter. In summary, we agree with your conclusion that a realistic and credible wetland mitigation plan is required before the benefits of the project can be balanced against the detriments of the project and prior to permit issuance. We also agree with the procedure you recommended the applicant follow to achieve a credible wetland mitigation plan and monitoring plan.

The Service believes that the applicant's summary of expected wetland functions and values and rationale for plantings do not fulfill the aforementioned requirements our agencies agree on. Mr. Hippensteel, the applicants consultant, discusses the ecological dynamics of the Maumee River and how these processes make it difficult to predict what will exist at the project site in 4 or 5 years. He has outlined a planting scheme based on water depth at average high water elevations. He states that many factors were used to design the wetland plantings beyond water depth, yet no substantial discussion or rationale is included beyond water depth. He proposes to test soils and add nutrients as needed, but does not discuss what soil augmentation will be included or what it is based on. In general, the new material submitted by the applicant actually has very little new information. Until the

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applicant locates a control site along the river with analogous conditions to those proposed, a credible wetland mitigation plan cannot be designed.

The most disturbing aspect of the applicant's expected wetland functions and values is that the entire area will be maintained free of trees. The applicant states that the area will not be allowed to succeed to a typical riverine wetland, that is, one with trees and woody vegetation. They admit that this will make it difficult to predict what type of environment will exist in the area and to find a control area. Beginning with early coordination, the Service has recommended, and it has been our understanding that, once vegetation has been established, no chemical or mechanical manipulation of the vegetation would occur. We have repeatedly questioned comments made by the applicant that implied a "maintained grass" channel was used in the HEC-2 and HEC-6 modeling. We also questioned, in our November 30, 1989 letter to your office, the applicant's statement in their Operations and Maintenance Manual (O&M) that "undesirable" vegetation would be removed every 6 months. We stated in that letter that:

> "It is our understanding, and a critical aspect of the mitigation package, that once final grading is completed that except for the boat launch area, no vegetation manipulation will occur except for establishment of the individual tree plantings. If the vegetation is mowed and/or otherwise mechanically manipulated it will virtually eliminate fish and wildlife habitat value."

In your February 22, 1990 letter to our office you addressed our concerns about vegetation manipulation in the project area. You informed us that your hydrologists stated that "maintained grass" is a catch-all term used to describe all areas that are covered with vegetation, as opposed to areas that are covered with concrete or bare earth. Further, they advised that the HEC-2 model, the hydrologic underpinning for the project, apparently used very conservative roughness coefficients that allow for the area to be vegetated with woody vegetation. In that same letter you stated:

> ". . .we can expect the channel, including the riverside areas, to be colonized and eventually support great numbers of trees. Trees seem to be the only persistent vegetation which now survives in conditions of flooding and inundation that exist in the contours that are proposed in the new channel. Given these conditions, we quite frankly expect trees to do much better in the new channel than the herbaceous and shrub species that the applicants list in their plans."

We agree completely with that statement. Given that the hydrologic modeling was 1) completed with the assumption of woody vegetation reestablishment, 2) the typical and stable condition for the contours proposed would be wooded, and 3) that undisturbed vegetation allowed to develop naturally is also the highest in value for fish and wildlife resources, we strongly object to any vegetation manipulation once the establishment of the approved plantings is completed.

In summary, the Service does not feel that the applicant has provided a realistic and credible wetland mitigation plan, and we therefore object to the issuance of the permit due to the lack of adequate mitigation. We continue to agree that if the applicant completes the recommendations you outlined in your aforementioned March 28, 1990 letter, a credible mitigation plan can be developed. Although not discussed in this letter we continue to believe that an EI* should be completed so that an adequate study of alternatives can be completed which will ensure that the project selected will be the least environmentally-damaging while still providing the projected flood damage relief.

If you have questions concerning our recommendations please contact Scott Pruitt at (812) 334-4263.

Sincerely yours,
David C. Hudak
David C. Hudak
Supervisor

cc: U.S. EPA Region V, Aquatic Resources Section, 5WQD, Chicago, IL
Director, Indiana Division of Fish & Wildlife, Indianapolis, IN
IDNR, Division of Outdoor Recreation, Indianapolis, IN
IDEM, Division Water Management, Indianapolis, IN

Regional Director, FWS, Twin Cities, MN (FWE-FAC) (ATTN: Mamie Parker)

[redacted]

Exhibit F

2C The Fort Wayne Journal-Gazette Thursday, April 19, 1990

City's bid for flood work permit hit

By MICHELE SHAFFER
Staff Writer

While the U.S. Army Corps of Engineers may be only a few months away from a decision on the Maumee River widening, environmentalists are gearing up for a longer battle.

Environmentalists have circulated a petition opposing the widening and have gathered a list of signatures approaching 26 feet in length.

The flood-control project will remove about 1.4 million cubic yards of dirt from the river, as it stretches four miles east of the Anthony Boulevard bridge. The widening would lower the river by about 1.3 feet, according to the Maumee River Basin Commission, which is overseeing the project, and the Allen County commissioners, who have applied for a federal permit for the $8.6 million project.

The Indiana Department of Natural Resources granted the county a state permit to do the widening, but the permit is tied up in a legal battle between the county and the Stockbridge Audubon Society and the Izaak Walton League.

And now the environmentalists are aiming their guns at the county's hopes for a federal permit.

Izaak Walton League member Tom Dustin estimated the petition has more than 1,000 signatures. The petition:

■ Requests the corps to conduct a public hearing before making a decision.

■ Asks the U.S. Environmental Protection Agency to intervene and deny a permit.

■ Asks that area congressional representatives and senators support the petition.

■ Requests that Indiana's budget agency not release any state appropriations for the widening project until the corps prepares a statement outlining what environmental hazards the project will have.

The state appropriated $3.2 million toward the project in 1987, but the budget agency will not release the money until the county has all needed state and federal permits.

State legislators in 1989 allocated the remaining $5.4 million for the project, and that money will come from lottery proceeds deposited in the Build Indiana Fund.

A corps officials said Tuesday it is unlikely the Army will grant the request for a public hearing.

"We don't feel it would benefit us in getting any further information ... to assist us in making a decision," said Gary Mannesto, chief of the regulatory functions branch of the corps' construction and operations division.

Earlier this month, Mannesto chided the county commissioners for authorizing construction work to relocate water and sewer lines along the north bank of the Maumee River, just west of Coliseum Boulevard.

"Please be advised that additional unauthorized activities will not be treated lightly and may seriously affect the permit review process of your current application," Mannesto wrote in a letter to Allen County Commissioner Jack Worthman.

Worthman said Wednesday that the county thought it had authority to do the utility relocation work. He said it was urgent the county move the lines then because the river level was low and water usage was not at a peak, as it might be in the summer.

Mannesto said Wednesday it would probably be one or two months before the corps decides whether to issue a federal permit authorizing the river widening or conduct an environmental impact statement. The county cannot begin the project without the federal permit.

If the county is correct that the river widening will lower the river level by 1.3 feet, it could make a difference between a 100-year flood and a 50-year flood, according to the river commission.

Dustin said the claim of a 1.3-foot reduction is false. A geologist hired by the Audubon Society and the Izaak Walton League has estimated the flood control benefits to be much lower.

Aldo Giorgini, who owns Giorgini Consulting, estimated a river level reduction of 0.65 feet to 0.96 feet, as opposed to the county's estimate of 0.88 feet to 1.3 feet.

Worthman didn't have much to say in response to that, except that "if you dig deep enough" you could find someone to disagree with anything.

Exhibit G

PETITION

Save the Maumee River

A proposal to widen the Maumee River as a flood control measure at Fort Wayne, Indiana, will destroy several miles of riverine forest along the north bank. This will be followed by excavation of the bank down to river water level at widths up to 250 feet. More than 1.1-million cubic yards of soil will be removed, 300,000 of which will be deposited back on the adjoining flood plain. No place has yet been secured for the other 800,000. Stripping away of this forest will not only destroy a valuable forest, which is all public land, it will deprive the river ecology of habitat and food source for aquatic life, and by removing shade will increase water temperature. The Maumee is even now a degraded stream, and is listed as a fish consumption advisory river for PCB. This means that eating the fish must be restricted for health reasons. The flood control benefit is marginal at best. The local sponsors claim it will only reduce a 100-year flood crest by 1.3 feet....off the top of a 28-foot flood crest. An expert hydrologist asserts even that claim is exaggerated. The cost estimates, originally $7-million, have risen to $9-million--all of that wheedled from State taxpayers. Almost $11-million in emergency Federal flood control money was spent between 1982 and 1985; and a $13-million Corps of Engineers diking plan is also before Congress. **The destructive Maumee River widening is unnecessary.**

Accordingly, the undersigned state they are opposed to the river widening project. They further request:

1. That the Corps of Engineers, which is considering a Federal permit, and which has thus far **refused to hold any public hearing**, prepare an Environmental Impact Statement, and hold a public hearing;
2. That the U. S. Environmental Protection Agency assert its powers, and either override the Corps to deny a permit, or insist that the Corps first prepare an EIS;
3. That the District Congressperson and Indiana's two U. S. Senators support this Petition; and
4. That the Indiana State Budget Agency and the Governor refuse to release state appropriations until the EIS is prepared.
5. The undersigned further assert that a superficial Environmental Assessment is insufficient to evaluate the scope of effects the river widening plan will have on the environment and upon these wetlands and waters of the United States.

Name	Street	City/State/Zip	Date
Mylina J. [illegible]	11524 CHERRYWOOD DR.	Ft. Wayne, IN 45	4-22 90
[illegible]	2807 Parnell	Ft. Wayne IN 4680	4/22/90
Lisa S. Reyes	7606 Knightwood Dr.	Ft. Wayne IN 46819	4/22/90
Heather Mann	1227 W. Wayne	Ft. Wayne In 46802	
[illegible]	[illegible]	Ft. Wayne	46819
[illegible]	332 Ridgewood #11	Fort Wayne IN 46805	
[illegible]	3402 E 400 S 57	Churubusco IN	46723
[illegible] McKinley	1211 [illegible] Rd	Ft Wayne	46825
[illegible]	[illegible]	Ft Wayne	4/18/90
Holly Pranger	4924 STANDISH Dr.	"	46806
David Seipel	4901 Oliver St.	ft. wayne	46806
Linda Brown	1001½ W. Jefferson	Ft Wayne	46801
Clay Carl	817 Union Apt #3	ft. wayne	46802
DR. BRENDA STILES	9721 EARMAN RD	LEO IN	46765
Jeanine Beeler	2204 KENSINGTON	FT. WAYNE	46805
TOM SWINFORD	709 W. WILDWOOD	FT. WAYNE	46807

Exhibit H

Fort Wayne JOURNAL-GAZETTE Thursday, February 22, 1990

Helmke plan to alter areas in flood plain

By MARK SKERTIC
Staff Writer

A flood of money-saving changes could be in the works for about 3,000 homes and businesses in the city's flood plain.

Restrictions on building in some portions of the flood plain would be eliminated or eased under a plan being backed by Mayor Paul Helmke.

Helmke's plan would eventually revise what areas are designated part of the official flood plain. The move was spurred by progress in local flood-control projects, which will eventually keep rising floodwaters from some neighborhoods.

Currently, people living near some areas of the three rivers and Spy Run Creek are required to carry flood insurance. They are also restricted on what type of improvements can be made to structures in the area, including a requirement that the improvements cannot increase a building's value by more than 40 percent.

"When I've gone on neighborhood walks in the areas, I'm asked by people why they can't fix up their home, why they can't fix up their garage," Helmke said. "This would alleviate that."

Among the projects under way is an Army Corps of Engineers' plan that calls for improving and raising 35,000 feet of levies, flood and retaining walls along the St. Joseph, St. Marys and Maumee rivers and Spy Run Creek.

That protection, coupled with a plan to widen portions of the Maumee means some areas that have traditionally flooded should be safeguarded against rising water in some areas.

The mayor's plan divides the current flood plain into three areas:

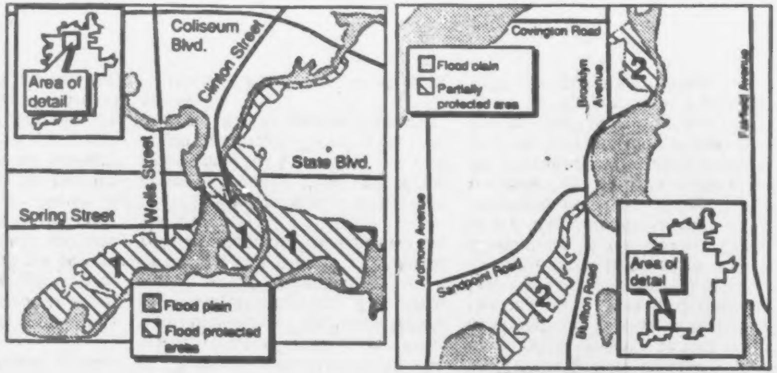
■ Area 1 includes 3,022 structures near the confluence of the three rivers. Building owners in this area would be allowed to make substantial improvements to their structures' interiors and exteriors, and the cap on how much a property could be improved would be eliminated.

Flood insurance would no longer be required for buildings in this area.

■ Area 2 includes 167 structures in southwestern Fort Wayne, near the St. Marys River. The area will receive some benefits from flood-control plans, but will still be considered part of the flood plain. Once work begins on the control projects, building owners would be allowed to make improvements that increase a property's value by 50 percent — up from the current 40 percent cap.

■ Area 3 contains 1,437 properties that will remain in the flood plain after flood-control work is completed. The same

See **FLOOD** /Page 2C.



STAFF ILLUSTRATION BY LISA SCHWABEROW

Mayor Paul Helmke's flood plain proposal for the city would redesignate part of the plain as Area 1, areas that will be protected from flooding. Area 2 is a smaller area that will have partial protection.

Continued on reverse side...

Flood

From Page 1C.

restrictions on property in the area that currently apply would remain in place.

In addition, federal regulations have been changed so that some improvements will be allowed to homes and the cost will not be limited to only being allowed increase the value of a structure 40 percent.

While that federal change is already in place, all of the Helmke administration's proposed changes are contingent on flood-control work being completed. The changes in designation will need approval from the City Plan Commission, Board of Zoning Appeals and City Council.

The plan received mixed reviews from neighborhood's located in flood-prone areas.

"I'm disappointed with the whole concept," said Penny Freeman, president of the Vesey Neighborhood Association. The area, which would be located in Area 2 of the mayor's plan, is not going to receive adequate flood protection, she said.

"They've singled out certain areas and gotten them out of the flood plain, but I don't feel my area is getting enough. There's a big cake and we're only getting a crumb," she said.

But Joe Foy, vice president of the Northside Neighborhood Association, said he was glad to see the homes in his Lakeside neighborhood were on the verge of being removed from flood plain.

"This will help, especially with the flood insurance," he said of the neighborhood located in Area 1 of the city plan. "Anything that can help build up Lakeside will help."

The official flood plain area is determined by the Federal Emergency Management Agency's flood insurance rate map. Property and buildings in the area qualify for flood insurance and must conform to local, state and federal guidelines for maintenance of property in order for the city to be eligible for FEMA programs and money.

COMMITTEE ON RULES
SELECT COMMITTEE ON AGING
WHIP-AT-LARGE
CO-CHAIR, NE AGRICULTURE CAUCUS

Congress of the United States
House of Representatives
Washington, D.C. 20515

LOUISE M. SLAUGHTER
30TH DISTRICT, NEW YORK

1707 LONGWORTH HOUSE OFFICE BUILDING
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DISTRICT OFFICES:
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ROCHESTER, NEW YORK 14614
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BATAVIA, NEW YORK 14020
716/343-2924

Statement of the Honorable Louise M. Slaughter

Public Works and Transportation Committee
Subcommittee on Water Resources

March 1990

Mr. Chairman and members of the Subcommittee, I'm pleased to be able present testimony on behalf of a project of real importance to the people living in my district in Irondequoit, New York. This community has been split from their neighbors in West Webster since 1985, when a bridge that connected them at the mouth of the Irondequoit Bay was taken down and never replaced. I am requesting that the 1990 water resources bill include authorization for federal funds to help rebuild the Lake Road Outlet Bridge.

The bridge is needed as a result of Army Corps of Engineers action taken under the Rivers and Harbors Act of 1958 which authorized the Corps to open Irondequoit Bay as a safe harbor. In 1985 the Corps tore down the existing Lake Road Outlet Bridge at the mouth of the bay and dredged a channel through the sand spit, opening the harbor. A replacement was never constructed. The people in the Lake Road community are now divided by water.

The five main reasons we need a real replacement bridge are safety, access, equity, economics, and community. Public safety agencies have voiced their concern that in time of need, fire fighters, ambulances, or police can no longer assist on the other side of the bay. The West Webster Fire District reports that each year the requests for help increase but calls in the northwest portion of their district cannot be assisted by the nearby community stations. Instead, assistance comes from stations which take up to twenty minutes to reach the site instead of the five minutes it used to take across the outlet bridge. Replacing the outlet bridge would increase everyone's access to public safety assistance.

The only other bridge spanning the bay, the Route 104 bridge south of the outlet, is overcrowded. Traffic is often backed up when the bridge is under repair. The Route 104 bridge is extremely vulnerable to bad weather and has at times been closed due to icy conditions. This bridge was not intended as the sole crossing of the bay. Congestion, frequent repairs, and accidents have resulted. Replacing the outlet bridge would alleviate these traffic problems.

PRINTED ON RECYCLED PAPER

The community allowed the Army Corps to tear down the outlet bridge in 1985 because the people believed that the bridge would be replaced once the Army Corps completed its dredging. However, the community had no say in the decision not to rebuild the bridge.

The Lake Road Outlet Bridge was part of the Seaway Trail, a 434-mile trail that follows the shorelines of Lake Erie and Lake Ontario and the Niagara and St. Lawrence Rivers. When the bridge was torn down, that part of the trail through this community disappeared; it now must leave the Lake Ontario shoreline and detour miles inland before returning to the lake shore on the other side of the bay.

The decision to tear down the bridge, broaden and deepen the channel was made to increase visitors to this recreation area. But the decision not to rebuild the bridge has hurt the economy and diminished the number of people who can enjoy the increased recreational opportunities. Fewer people can visit the marinas, restaurants, and parks on both sides of the bay. This does not make sense.

The local community has pulled together to provide its share of the cost of replacing the bridge. It has already spent several hundred thousand dollars for preliminary feasibility studies. It needs and deserves the assistance of the Army Corps in rebuilding a bridge to connect this once close community at the mouth of the bay.

As you may recall, authorization for this project was successfully included in the House-passed version of the 1988 Water Resources Development Act, H.R. 5247. However, it was stripped out of the conference report at the last minute when the House and Senate could not agree on whether to include such projects in the bill. This year the bridge has proven, bipartisan support.

There is strong community support to rebuild the Lake Road Outlet Bridge, but this will not be possible without federal support. The bridge is estimated to cost $15 million -- ten times the amount that would have been needed to replace the bridge in 1958, when the harbor dredging was authorized -- and the local government has money for half of the cost. I urge the Subcommittee to once again include in the Water Resources bill a provision to authorize $7.5 million in federal assistance to rebuild the Lake Road Outlet Bridge.

Thank you.

Louise Slaughter

DRAFT

DRAFT FINAL REPORT
NAFSMA/CORPS WORKSHOP

SCOTTSDALE, ARIZONA

DECEMBER 6-8, 1989

DEPARTMENT OF THE ARMY
OFFICE OF THE CHIEF OF ENGINEERS
WASHINGTON, D.C. 20314-1000

REPLY TO
ATTENTION OF:
Project Management Division

06 APR 1990

TO THE WATER RESOURCES DEVELOPMENT COMMUNITY:

As a result of the joint workshop between the Corps and the National Association of Flood and Stormwater Management Agencies (NAFSMA) resource sponsors in Arizona, we have been able to surface a number of issues concerning our evolving relationship in the development of water resources projects. This report goes a long way in detailing the specifics of these issues, prioritizing them, and recommending some alternative solutions. I wish to take this opportunity to show what we are now doing and what we will do in the future as a result of this workshop to resolve some of these issues.

Partnering and the partnership relationship between the Corps and sponsors is one of two major themes for the Corps of Engineers throughout 1990. In this context, we are fostering a number of initiatives that will lead to solving several concerns raised at the workshop in the near term. Among them:

1) REORGANIZATION. The reorganization of HQUSACE as well as District, and now Division, offices has and continues to foster profound effects in the way we do business. The sorely needed single point of contact THROUGHOUT a project's development, from reconnaissance to final completion and turnover to the sponsor, is now established through the Deputy District Engineer for Project Management and the Life Cycle Project Management (LCPM) system. With this, sponsors now have an authoritative conduit to voice their concerns in all areas of project development, including Formulation and Evaluation, Design, Real Estate, and Construction.

2) PARTNERING. A number of specific requests made by sponsors have been put on the "do it now" list. Recommendations that sponsors be involved in the development of the Project Management Plans, attend the LCA Committee Meetings, and be part of the monthly Project Review Board meeting, are wholeheartedly supported. We are reaffirming this support throughout the Corps. A sponsor's Information Kit has been developed in draft form which includes:

- Sponsor's Rights & Responsibilities
- Detailed list of Corps Acronyms
- Detailed list of Pertinent Corps Regulations
- List of related Corps training courses (with a

recommendation for attendance by the sponsors when requested)
- Negotiable/Non-Negotiable Items in Water Resource Development

This kit goes a long way in answering many questions sponsors raised at the conference.

3) PROPONENCY. The area which I introduced at the conference, and is a new concept for the Corps, is Project Proponency. The Corps provides professional technical services in project development and makes the technical case for Federal investment, but it is the sponsor's responsibility to build non-Federal consensus supporting the project by maintaining public and political support for the project throughout its life. The cost shared water resources projects in which a federal interest has been identified are those of the local sponsor.

4) GUIDANCE. We are currently in the process of rewriting several key regulations, with an emphasis towards clarity on policy and procedures, particularly in the areas of Real Estate, LCPM, LCA's, Planning, Cost Accounting, and General Engineering. These rewrites will emphasize the sensitivity of the Corps/sponsor relationship, and among other things mandate early and constant communication between the two. We are also looking into the limitations of the Anti-Deficiency Act. Finally, we are currently reexamining delegation of LCA execution at the lowest possible field level. We must, however, recognize that this can only be achieved with projects that reflect consistent application of policy and uniform treatment of sponsors.

5) RESTRUCTURING THE PROJECT DEVELOPMENT PROCESS. The Corps reorganization has not only caused a reshuffling in the way we are internally structured but answered a need to better relate the process -- the way we now plan and execute projects -- to the way we review and approve them. In that context, we now conduct multi-disciplinary, multi-office meetings at early stages during the Reconnaissance, feasibility and Design Memorandum development. Outstanding policy issues are raised and resolved early. This focuses attention on the importance of establishing and maintaining a firm cost estimate and project execution schedule, which both the Corps and the sponsors can rely on. We have also established a centralized review of all Feasibility and certain General Design Memorandum reports at the Headquarters level, through the establishment of the Washington Level Review Center. They too are part of the early resolution of many issues early in the process.

Longer term, the Corps of Engineers will continue to evolve and adapt to the cultural changes that the Water Resources Development Act of 1986, and project management have brought upon the way we have traditionally performed our missions. Although these concepts came about through different circumstances, they are all positive aspects that have led to a closely knit working relationship between the Corps and the sponsor in order to "get the job done". Only with open and continuous communication, both within the Corps and with our sponsors, can the ultimate goal of quality projects, on time and within costs be accomplished.

I believe that this workshop was a very timely and much needed joint effort. I am extremely proud that the Corps of Engineers is able to be flexible, as well as, sensitive to the nation's, our partner's, and our customer's needs in this very dynamic time of water resource development. I continue to look forward to the future with great optimism.

Patrick J. Kelly

PATRICK J. KELLY
Major General, USA
Director of Civil Works

NAFSMA
NATIONAL ASSOCIATION OF FLOOD AND STORMWATER MANAGEMENT AGENCIES
1225 Eye St., N.W. Suite 300 • Washington, D.C. 20005 • (202) 682-3761

April 5, 1990

Dear Colleague:

Dr. Robert Stearns, Deputy for Project Management in the Office of the Assistant Secretary of the Army for Civil Works, stated that the Scottsdale 1989 workshop set a standard of communication between all of the partners striving to make the Water Resources Development Act of 1989 work.

As president of the National Association of Flood and Stormwater Management Agencies, I pledged that the results of the Scottsdale Conference would not only be compiled into an issue discussion document, but that the recommendations would result in actions.

Statements like these are easy to make at the end of sessions where hard work and professional congeniality create an aura of opportunity for change. The real test is to look at what happens after the glow has worn off. I am pleased to be able to say that three months after the Scottsdale Conference, there are definite indications of progress.

First, the workgroup discussions, as suggested by Dr. Bory Steinberg, have been interpreted and compiled into a final format that focuses on the issues. The document now clearly presents the specific recommendations that we will be following up on over the next year.

Second, the Corps of Engineers has drafted and sent out for review a "Sponsor's Information Kit." Included in this material are many of the recommendations from the Scottsdale Workshop, such as those calling for the following:

- *clarification of sponsor's rights and responsibilities;*
- *identification of negotiable and non-negotiable issues; and*
- *a guide to Corps guidance materials.*

This information package clearly represents a major step towards establishing full partnership relationships between the Corps and local sponsors.

Although we have made progress, there is still a clear need for improvements to the manner in which the Water Resources Act is being implemented. NAFSMA will continue to work with the Corps and Congress to bring about a partnership in which every level is fully involved.

Sincerely,

Stan Williams
President

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LOCAL COOPERATION AGREEMENTS (LCAs)

ISSUE DESCRIPTION

A detailed, written contract between sponsors and the federal government describing terms of the partnership under which a project is constructed; required prior to construction for all specifically authorized new starts, resumptions, separable elements and previously funded but unstarted (30 Apr 86 for flood control; 17 Nov 86 for navigation) projects. Requirement also applies to all Continuing Authority projects. Current policy is that LCAs will not be transmitted to ASA (CW) for review until GDM or Design document is approved; project is budgeted as a new start; financing plan is secured and NEPA requirements are met. Actual execution of the LCA takes place after funds for construction are appropriated.

BRIEF PRIORITIZATION OF DISCUSSION

For Workgroups I (South Pacific Division), II (Southwestern and Lower Mississippi Divisions) and III (Ohio River and North Central Divisions), the discussion on local cooperation agreements focused primarily on timing. Although each of the workgroups may have focused on different specific procedural issues relating to timing, they all pointed to the general belief that the timeframe for approval is excessive.

The possibility of inserting some type of memorandum of agreement, early in the process, was put forward as a means to help facilitate real estate acquisition. Use of a memorandum of understanding was also offered as a recommendation for addressing procedural issues not covered in the LCA.

Negotiability was the priority focus of the discussion in Workgroup IV (South Atlantic and North Atlantic and New England Divisions) and played a major role in most of the other individual workgroup discussions as well. Concerns over the actual authority delegated to LCPM to negotiate were raised in at least two workgroups. Identification of the negotiable from the non-negotiable items was recommended as a means for improving the negotiation process. The fact that the LCA is not a balanced contract and the need for a better definition of the term "partnership" highlighted the discussions on this topic in Workgroup V (North Pacific and Missouri Divisions).

One of the more interesting recommendations that came out of the workshop discussions was the call for a "Bill of Rights" for sponsors and the Corps.

OVERVIEW OF LCA-RELATED PROBLEMS AND CONCERNS

Timing – Signing of LCA Comes Too Late In The Process:

- Local sponsors must start acquisition well in advance of final commitments of LCA. (Workgroup I)
- It takes too long for headquarters review of Feasibility Study cost sharing agreements. (Workgroup I)
- Current policy requires congressional appropriation prior to signing of an LCA, but local acquisition needs to proceed before this point and is stymied by lack of an agreement or assurance. (Workgroup III)
- Time required for approval is excessive. (Workgroup V)

Negotiability:

- Ability to negotiate has not been given to those individuals who actually sit across the table. (LCPMs and sponsors feel that local Corps staff don't have the authority to negotiate). (Workgroup II and IV)
- What items are negotiable and what are not? (Workgroup II)
- Definitional differences exist, as well as differences on how negotiations should be conducted. (Workgroup V)
- The LCA is not negotiable and that the term "equal partner" appears questionable. (Workgroup III)
- Time and effort used in negotiation detracts from project design and planning, as well as affecting costs. (Workgroup IV)

Limitations of local/state ordinances or laws, as well as local funding priorities, are not reflected in LCAs. (Workgroup IV)

Federal vs. local sponsor roles are not clearly defined. (Workgroup II)

New Hazardous Toxic Waste regulation now shifts entire burden to local sponsor, who has no control over right-of-way selected for the project. (Workgroup IV)

Inconsistency In Routing LCAs from District through Division to OCE. Weakness is at the Division level, where due to procedural constraints, not much can be added to project quality or processing. – Workgroup IV) Similar concern over duplicative review expressed by Workgroup III.

Corps has a negative attitude towards Section 215 and Section 104 provisions for local sponsors to advance a project. (Workgroup V)

OTHER ISSUES AND UNIQUE CONCERNS:

- Some states have constitutional amendments against obligating future state appropriations and therefore, local sponsors cannot sign LCAs (Workgroup V).

- No Appeals Method Appears To Exist. (Workgroup V)

- Local sponsors sense there is not cap on costs. No impetus for the Corps to contain costs. (Workgroup V)

RELATED ISSUES

- Federal government should share cost of LERR acquisition risk, 50/50 if project not advanced. (Workgroup I)
- Local sponsors need to address real issues more specifically early on in the process, i.e. during PED (Workgroup I)
- An early document such as an MOA could help to facilitate real estate acquisition. (Workgroup III)

JOINT NAFSMA/CORPS RECOMMENDATIONS

Timing:

- Move up time in process when LCA can be signed (Workgroups I and III)
- Partial delegation of LCA approval to district, based on dollar amounts (Workgroup II)
- The LCA process should be moved out of Washington (Workgroup II)

- **Give district commander more authority to execute cost sharing agreements, particularly smaller ones (Workgroup I)**

Negotiability:

- **Specifically identify the negotiable from the non-negotiable items (Workgroup II)**
- **Partial delegation of LCA approval should be given to the district commander (Workgroup II)**
- **Allow for more negotiation and input from local sponsor. (Workgroup III)**
- **Process must be improved at Division and OCE, since its very difficult to raise and resolve issues between the district and local sponsor. (Workgroup IV)**
- **Resolve the differences concerning definitions and how negotiations are conducted. (Workgroup V)**

LCA's failure to recognize local/state ordinances, laws or funding priorities

- **Standard LCA language should be modified to allow for local/state flexibility. (Workgroup III)**

Duplicative Review

- **Streamline coordination through various levels to eliminate bouncing effect and expedite overall project. Encourage locals to consider early reviews as "drafts" for information only and not for approval. (Workgroup III)**

Federal Vs. Local Sponsor Roles

- **Encourage the use of a memorandum of understanding to address procedural issues not covered in the LCA. (Workgroup II)**

Appeal

- **Procedure needs to be established to allow local sponsor to appeal. A local sponsor needs the opportunity to appear before the review board before the Assistant Secretary says the LCA is final. (Workgroup V)**

- The sponsor should have a right to review the changes made in the LCA at higher levels. (Workgroup V)

ADDITIONAL RECOMMENDATIONS

- The Corps should be required to develop a "Bill of Rights" for sponsors and the Corps. (Workgroup V)

STATUTORY BASIS

Sec 221 Flood Control Act 1970
Ch IV - FY 85 Supplemental (P.L. 99-88)
Sec 101(e), 103(j) & 912 of P.L. 99-662
(Water Resources Development Act of 1986)

POLICY/GUIDANCE

ER 1165-2-131
ER 1105-2-100 (Interim)

LIFE CYCLE PROJECT MANAGEMENT (LCPM)

ISSUE DESCRIPTION

The Assistant Secretary of the Army for Civil Works has initiated a new Life Cycle Project Management program Corps-wide to focus on the delivery of a quality project on time and within budget. The system strengthens continuity, focuses on increased efficiency and accountability and provides greater partner participation in project development. The system provides a focus point for the project, emphasizes PM leadership, increased commitment to quality, and a unified commitment of the Corps and partners through greater partner participation. The PM manages changes in project schedule, budgets and cost.

BRIEF PRIORITIZATION OF DISCUSSION

Overall, the concept of Life Cycle Project Management, and the role of the project manager in the process, generated the most discussion. The message that problems exist concerning the level of authority that the project manager actually has in the process was very strong throughout the workshop discussions and was identified as an area of concern in Workgroups III (Ohio River and North Central Divisions), IV (South Atlantic and North Atlantic and New England Divisions) and V (North Pacific and Missouri River Divisions).

The need for more involvement of the local sponsor in developing the project management plan, and in the LCPM process in general, was discussed in a variety of forms in Workgroups I (South Pacific Division), II (Southwestern and Lower Mississippi River Divisions) and III, leading ultimately to recommendations to ensure the full "partner" role to the local sponsor by such actions as extending them invitations to attend District Project Review Board Meetings and to provide input into Corps-prepared monthly reporting documents.

OVERVIEW OF LCPM-RELATED PROBLEMS AND CONCERNS

The Role Of The LCPM:

- No Clear Understanding Of LCPM's Role. (Workgroup I,II and III)

- Problems exist over how much authority LCPM really has. If agreements are made between LCPM and local sponsor, there need to be assurances that those decisions won't be regularly reversed by the District or a higher authority. (Workgroup III, IV and V)
- Problem of reality vs. theory (Workgroup II)
- Lack of a clear understanding by local sponsor of the team Project Management concept. (Workgroup III)
- Overall, there is significant disagreement concerning what the LCPM is really all about (Workgroup III)
- Definitions of negotiation and partnership are unclear. (Workgroup V)
- Disagreement exists over whether or not a team is to stay together through project development and construction. Clarification is needed in the Corps or this will cause conflict. From the local sponsor perspective, two parties of teams are expected to remain in effect, the local sponsor and the LCPM. Local sponsors are also expecting that the LCPM will be the project "ombudsman" or "advocate." (Workgroup III)
- Stovepipes, in some cases, bypass LCPM and go directly to sponsor. (Workgroup IV)
- No LCPM counterpart at Division level. (Workgroup IV)
- New ER is weak in defining Division role in project decision process, and in LCPM process (Workgroup IV)

Project Management Plans:

- Project Management Plans should be developed in cooperation with local sponsors. (Workgroup I)
- No opportunity for local sponsors to participate in Project Review Board Meetings (Workgroup II)
- Need for a Project Management Plan for a project that is already under construction is questionable. (Workgroup II)

RELATED ISSUES

Involvement of the local sponsor should be expected from project initiation through design and into construction. (Workgroup III)

Lack of a clear guidance from OCE to Districts on how to involve sponsor. (Workgroup I)

Failure of monthly reporting documents to include sponsor views. (Workgroup I)

Monthly reports, rather than the project's implementation, have become the main focus. (Workgroup I)

Concept is good, but process needs to be perfected (Workgroup II)

UNIQUE CONCERN

- Needs to be a memorandum of understanding, or some other agreement, between Corps and sponsors that could outline and define the roles of the Corps and sponsors in the LCPM process. (Workgroup I)

JOINT NAFSMA/CORPS RECOMMENDATIONS

The Project Management Process:

- The role of the Division needs to be clarified. (Workgroup IV)
- LCPMs should meet more often with sponsors and communicate more frequently on the status of projects. (Workgroup I and V)
- Staff need to continue to be involved in the Project Management process and greater emphasis should be placed on the need for full acceptance to be successful. (Workgroup II)
- Corps must improve flexibility and responsiveness to handle project-specific differences and needs. (Workgroup III)

The Role and Authority of the LCPM:

- Authority and accountability of LCPM's needs to be ensured. (Workgroup III and V)
- Improve authority delegation to Division and District. (Workgroup IV)
- Improve working, as well as authority, relationships between Deputy District Engineers for LCPM and the Chiefs of functional units -- Project Review Board could be helpful in this process. (Workgroup IV)

Ensuring The "Partner" Role of the Local Sponsor:

- Extend a standing invitation for the sponsor to attend District Project Review Boards (Workgroup I and II)
- Local sponsors need to insist and keep communicating the need for involvement, to remain a part of the process after the feasibility stage. (Workgroup III)

Project Management Plans:

- Sponsor should be fully involved in the preparation of monthly reports and should receive copies of the document. (Workgroup I and II)
- Should be a comprehensive project plan that identifies the roles and responsibilities of both the Corps and local sponsors. (Workgroup II)

Monthly Reporting:

- The views and concerns of sponsors should be included in the monthly reports. (Workgroup 1)

STATUTORY BASIS

WRDA 86 Emphasizing Partnership and Controlling Cost Growth

POLICY/GUIDANCE

Initiative 88 - ASA(CW) initiative to change the manner in which Corps plans, designs, and constructs projects

Focus 89 - LCPM System established at District, Division & HQ levels

ER 5-2-1

REAL ESTATE

ISSUE DESCRIPTION

WRDA of 1986 provides that non-federal sponsors be credited, to varying degrees, for the value associated with acquiring and providing all lands, easements, rights-of-way and disposal areas (LERD) and costs associated with the performance or assuring the performance of relocations necessary to construct, operate and maintain the project. Required LERD may already be in the possession of the sponsor or may still need to be acquired. Similar situations may apply to necessary relocations. Maximum credit is a function of the cost sharing for the project purpose. Such LERD value is to be established by the sponsor using a qualified appraiser acceptable to the sponsor and the federal government. The appraisals are then reviewed and approved by the government. Value for relocations is established based on actual cost less improvements except for unique situations. The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) and amendments must be complied with by the sponsor in all real estate acquisition activities. The timing of the providing of required items is key to efficient construction.

BRIEF PRIORITIZATION OF PROBLEMS DISCUSSED

Overall, the timing of real estate planning seemed to be of highest concern, with only one workgroup out of five not identifying this as a high priority item. In Workgroup I (South Pacific Division), the discussion seemed to focus more on procedural items concerning value and credit (a priority in the other workgroups as well), area discrepancies concerning the level of review for appraisal (also a timing issue) and land title and spoil and borrow site requirements.

Discussions in workgroups II (Southwestern Division), III (Ohio River and North Central Divisions), IV (South Atlantic and North Atlantic and New England Divisions) and V (North Pacific and Missouri River Divisions) all stressed that timing was a priority concern and in response, recommended placing a greater emphasis on real estate, and even creating a mechanism to do so, during the plan formulation and design effort. Other identified issues related to timing include unrealistic schedules, which provide too short a timeframe to actually acquire the real estate, local sponsor problems initiating land acquisition prior to signing of LCA and the fact that right of way information is made available to local sponsors too late in the process to make the acquisition of real estate in time for construction targets realistic.

Value and credit-related concerns also ranked as a high priority item in most of the workgroup discussions. Identified as a concern in both workgroups I and IV was the use of regional indexes to determine real estate cost inflation, a process that in many areas grossly misrepresents local project real estate costs. Under procedural issues, the message that there is simply too much Corps review of real estate, much of which is duplicative and comes too late in the process, seems clear in many of the individual concerns raised during the workgroup discussions. A concern that real estate personnel are not perceived to be part of the management team was also raised in the discussion.

OVERVIEW OF REAL ESTATE PROBLEMS AND CONCERNS

Timing:

- Real estate and engineering components of a project are intertwined and should be addressed early in process. (Workgroup II, III, IV and V)
- Engineers (Preconstruction Engineering and Design) are putting together schedules that are unrealistic – too short to acquire the real estate. (Workgroup V)
- Local sponsors have problems initiating land acquisition prior to signing of LCA. (Workgroup II, III and V)
- Corps makes right of way requirements known to local sponsor too late to acquire real estate in time to make construction start-up dates. (Workgroup I and IV)
- Some Corps districts require differing levels of review of appraisals for local land acquisitions, which can cause long time delays, especially on large projects. (Workgroup I)
- Great variation across Corps as to when real estate people get to visit project site. (Workgroup IV)
- Design and real estate realignment detracts from the sponsor time that could be used for identifying acquisitions. (Workgroup II)

Value & Credit:

- Present Corps procedures inappropriately apply regional indexes to figure real estate cost inflation, which in many areas grossly misrepresent local project real estate costs. (Workgroup I and IV)
- Real estate undervalued in Recon/Feasibility Reports. (Workgroup V)
- Lack of clear rules and procedures for appraisals and valuation, particularly in situations where the land has been previously acquired or owned by the local sponsor. (Workgroup III)
- Two separate valuation methodologies for LERRD, economic and real value. (Workgroup III)
- Question was raised about the process for reconciliation when disagreement exists between local sponsor and COE. Although there is a dispute resolution clause in LCA, a need exists for a specific and simplified clause on real estate valuation disputes. (Workgroup III)
- Lands dedicated at no cost to locals should not be counted in project cost for cost sharing purposes, at local's option. (Workgroup IV)
- If sponsor and Corps have determined ceiling on local sponsor's credit, then whatever local spends on real estate is not material to the project. (Workgroup V)

Process:

- Real estate personnel are not perceived as part of the project team, in some cases this results from Corps institutional barriers. (Workgroup IV)
- Corps does too much review of local real estate process (Workgroup IV).
- Sponsors don't know what Corps real estate procedural requirements are. (Workgroup IV)
- Capabilities of local sponsors vary greatly and process does not deal with this variation. (Workgroup IV)
- Acquisition requires demonstration of need for property. (Workgroup IV)
- Too many overlapping/repetitive standards and regulations for locals (local, state, federal laws and procedures) concerning property purchase. (Workgroup IV)
- Must include real estate plan in the project management plan. (Workgroup IV)

Uniform Relocation Act (P.L. 91-646):

- Application of Uniform Relocation Act prior to project authorization. (Workgroup II)
- Local sponsors should not be bound by federal acquisition law. Locals are already legally bound by constitutional law in land acquisition. (Workgroup IV)

Spoils Or Borrow Sites:

- Too much effort is expended on having local sponsor specify spoils or borrow sites for Corps to incorporate into plans and specifications. Contractors, rarely, if ever use them. (Workgroup I)

Land Title Requirements:

- Corps sometimes specifies fee title acquisition when easements would suffice. This situation causes local problems in real estate court settlements when GDM does not support local desire to acquire easement. (Workgroup I)

RELATED ISSUES

- Corps does not consider erosion control benefits. A flood control project can provide erosion-damage prevention, which should be accounted for in evaluating the project's benefits. (Workgroup II)

JOINT NAFSMA/CORPS RECOMMENDATIONS

Timing:

- Real Estate should receive a greater emphasis during the plan formulation and design effort (feasibility). Need mechanism in place to establish realistic real estate costs at Feasibility Phase. (Workgroup II, III, IV and V)
- Early local sponsor participation in the plan formulation process involving real estate issues should be highly encouraged. (Workgroup II)
- To eliminate current variations, have real estate people uniformly visit project site during Recon stage. (Workgroup IV)

- Implement a policy/regulation that permits Corps to certify appraisers, rather than appraisals, or that allows flexibility for locals having a strong track record. (Workgroup I)
- Implement Spot Check Appraisals (Workgroup I)
- Accept two independent appraisals in lieu of checking (Workgroup I)
- Move up timing on right of way determinations (Workgroup I)
- Provide a real estate report to local sponsors during feasibility/GDM and at least identify parcels needed under all alternatives. (Workgroup I)
- Recognize early on how project planning and design can affect right of way costs.

Value and Credit:

- Corps should use locally derived real estate costs, not national or regional indexes (*as are currently used to determine real estate inflation*), where appropriate. (Workgroup I)
- Recognize the differences in LERRD evaluation methodology, economic and real value, and ensure an understanding by both (*the Corps and local sponsors*) that the two methodologies are federally mandated. (Workgroup III)
- Establish a specific, and simplified, real estate clause (within the LCA) concerning real estate valuation disputes. (Workgroup III)

Process:

- Establish clear rules and procedures for appraisals and valuation, as well as other areas, for both the Corps and local sponsors. (Workgroup III)
- Recognize the validity of state and local law, as well as expertise concerning property purchase. (Workgroup IV)
- Real Estate Planning Report, describing how land will be acquired, when, cost and how it should be appraised, should be kept separate from Feasibility Report (Possibly an Appendix or Addendum). Feasibility Reports may become too costly if real estate studies are substantially increased. Sponsor agreement and signature on real estate planning document. (Workgroup V)

Specification of Spoils or Borrow Sites:

- Leave spoils and borrow sites up to contractors, as do local and private contracts. Corps cost estimate should be made based on conservative assumptions. (Workgroup I)
- Accept local sponsor's cost estimate of borrow or disposal (Workgroup I)

Land Title Requirements:

- Closer coordination should be undertaken to assign the most appropriate land title requirements for acquisition. (Workgroup I)
- GDM could remain silent on land title requirements. (Workgroup I)

Photogrammetry:

- Photogrammetry should continue to be used in design because it provides local sponsors with help in real estate. Design & right-of-way data improvements through use of photogrammetry would save time and money. (Workgroup IV)

OTHER RECOMMENDATIONS

Suggestions for local sponsors in real estate acquisitions prior to LCAs:

- Consider using "long-option" on properties that may ultimately be acquired. (Workgroup I)
- Prioritize acquisitions to favor those with escalating land values so that, in the event that the property is not required, it can be disposed of without a loss. (Workgroup I)

STATUTORY BASIS

Section 101 and 103 of WRDA 86
Section 13 of WRDA 88

POLICY/GUIDANCE

ER 1165-2-131
EC 405-2-14
Uniform Appraisal Standards for Federal Land Acquisitions

CREDIT FOR COMPATIBLE WORK

ISSUE DESCRIPTION

Sponsors have a variety of opportunities available to them to construct parts of projects or to provide in-kind efforts both prior to as well as during the construction; efforts for which they may receive credit/reimbursement. Sec 215 of the Flood Control Act of 1968, as amended, provides a procedure for a sponsor to construct an element of an authorized project where there is compelling reason to proceed before appropriation of construction funds for the Corps to proceed. Sec 104 of the WRDA of 1986 provides a vehicle on flood control projects for the ASA(CW) to accept work previously performed by sponsors and apply the value of that work toward the items of cooperation. Sec 204 of the WRDA of 1986 provides a vehicle similar to 215 that allows sponsors to enter into an agreement to design and construct an authorized navigation project and receive reimbursement for the federal share of work. There may also be certain project specific authorizations which allow for contributions by sponsors. Sponsors may also provide cash in advance of their required contributions in order to speed up PED studies, and for which credit may be applied at the time the LCA is executed and actual construction commences.

BRIEF PRIORITIZATION OF PROBLEMS DISCUSSED

In all five workgroup discussions, confusion over the process concerning credit for compatible work was expressed. In Workgroup V (North Pacific and Missouri River Divisions), the problem was identified specifically with Section 104, while in Workgroups I (South Pacific Division), II (Southwestern and Lower Mississippi River Divisions), III (Ohio River and North Central) and IV (South Atlantic and North Atlantic and Missouri River Divisions), the concerns about a lack of understanding of the process seemed to be much broader. Most of the discussion on this issue centered on procedural concerns. A concern that the Corps has a negative attitude towards Section 215 and 204 was raised by Workgroup V.

Concerns related to the length of time needed for credit applications and review were raised in three out of five workgroups, as was the related need to streamline the process. Under the category of timing, a need for earlier communications between the Corps and local sponsors was identified by Workgroup III. Within the overall discussion, it's important to note that at least one group (Workgroup II) expressed that it's still to soon to tell if there are problems obtaining credit. It's also important to note that at least two workgroups (I and III) recommended that the reasons for a dollar limit be closely examined and that possible methods for raising the limit, including legislation, be explored.

OVERVIEW OF PROBLEMS AND CONCERNS

Process:

- Lack of both information and understanding of the process and requirements for credit/reimbursement. (Workgroup I, III and IV)
- Confusion exists on the applicability of Section 104 to new projects. (Workgroup II)
- Local sponsors should not have to change their plans to address E&D and S&A costs. (Workgroup II)
- Local sponsors are unclear concerning the legal limits of the program. (Workgroup III)
- Local sponsors are not sure when they need to apply for Section 104 or 215 agreements. (Workgroup III)
- Unclear definition of the total project limits, extent of the program and who should do what. (Workgroup III)
- Corps policy fails to allow the maximum flexibility available under law. (Workgroup III)
- There is a need for greater understanding of which sections apply and under what circumstances, including time lines. (Workgroup IV)
- Corps has a negative attitude towards Sections 215 and 204 funds for local sponsors to initiate a project. (Workgroup V)
- Section 215 agreements have a low priority at the office of the ASA (CW) and such agreements must be approved prior to work. (Workgroup V)
- Sponsors can't get Section 204 projects approved. (Workgroup V)

Timing:

- Length of time needed for credit application review and approval is too long and a need exists for streamlining the process. (Workgroup I, III and IV)

- Corps and local sponsors need to open communications early in the project in order for all the elements of a project to be identified and considered. (Workgroup III)

Cap On Credit (Workgroup I and III)

Value:

- Too Soon To Tell If There Are Problems In Getting Credit. (Workgroup II)

UNIQUE CONCERN

- Difficulties exists in determining local in-house costs. (Workgroup II)

OTHER AREAS OF DISCUSSION:

- Dollar limits (legislative) are insufficient. (Workgroup III)

JOINT NAFSMA/CORPS RECOMMENDATIONS

Process:

- There should be some type of education initiative, possibly seminars or training sessions, for Corps of Engineers staff and local sponsors to address confusion about the credit process. (Workgroup I and III)
- Corps should keep local sponsors informed of the status of their applications. (Workgroup I)
- Current policies should be evaluated and revised to reflect maximum flexibility allowed by the law in order to better advance a project. (Workgroup III)
- Corps needs to overcome negative attitudes concerning Sections 215, 204 and 104. (Workgroup V)
- Corps should establish criteria identifying what is appropriate for Section 215 projects, such as saving federal money, preventing possible flood damage at an early point and/or whether the proposal is part of a larger project. (Workgroup V)

Cap on Credit:

- The reason(s) for the dollar limit should be investigated and possible routes for increasing the limit, including legislation, should be explored. (Workgroup I and III)

Timing:

- Authority should be delegated to district/division Corps of Engineers staff to make decisions on smaller credit requests. (Workgroup I)
- Establish a cash flow plan for individual projects, which addresses both local and federal funds. (Workgroup II)
- Corps and local sponsors should meet early to work out opportunities, limitations and/or concerns relating to the project's advancement. (Workgroup III)
- Policy and procedures should be developed that permit local construction, rather than hinder it, and that allow approvals to be made in a timely manner. (Workgroup IV)

Value:

- An easier means should be established for determining the actual effects on the local sponsor at conclusion of the study. (Workgroup II)
- Reasonable percentage figures should be used to address eliminate current difficulty in determining local in-house costs. (Workgroup II)

STATUTORY BASIS

Sec 104 and 204 WRDA 1986
Section 215 of Flood Control Act 1968

POLICY/GUIDANCE

ER 1105-2-100
ER 1165-2-18
ER 1165-2-29
ER 1165-2-30
ER 1165-2-120

DESIGN SENSITIVITY TO LOCAL NEEDS

ISSUE DESCRIPTION

Over the course of planning, designing and constructing a project numerous opportunities for changes occur. Before drafting an LCA, the sponsor and the Corps must agree on the scope of the project and the specific work to be covered in the LCA. District Commanders are authorized to make changes to project design to the extent the project remains consistent with the authorization and Principles and Guidelines. Deviations require ASA(CW) approval and must be addressed in the GDM or a technical report accompanying the final LCA package.

BRIEF PRIORITIZATION OF PROBLEMS DISCUSSED

Emphasized in discussions in Workgroups I (South Pacific Division), II (Southwestern and Lower Mississippi River Divisions), III (Ohio River and North Central Divisions) and IV (South Atlantic and North Atlantic and New England Divisions) was the concern that the Corps is unresponsive to local concerns, which include such issues as technical design, aesthetic and environmental quality considerations. It's important to note that Workgroup III noted that its discussion, overall, identified good communications between the Corps and local sponsors and reported that there were many favorable comments expressed by the group on this issue.

Most of the discussion among the workgroups seemed to generally focus on concerns relating to design criteria. Calls for more continuous local involvement in the process, a clarification of the term "betterments" and the establishment of common standards by FEMA and the Corps were expressed among the resulting recommendations.

In Workgroup V (North Pacific and Missouri River Divisions), a good amount of the discussion appeared to focus on procedural issues and in-kind costs.

OVERVIEW OF PROBLEMS AND CONCERNS

Design Criteria:

- Corps staff are unresponsive to local concerns, such as technical design and aesthetic considerations. (Workgroups I, II, III and IV) Workgroup II identified environmental quality, as it relates to community acceptability, as a particular concern. Workgroup III was not as critical, but noted that Corps is often unaware of local constraints or needs.
- Corps and the Federal Emergency Management Agency (FEMA) have different design criteria. (Workgroup I)
- The general Corps design criteria are different, i.e. higher safety factor, when compared to minimum standards of practices used by local sponsors. (Workgroup III)
- Local requirements may be more restrictive than the Corps, which could cause eligibility problems. (Workgroup III)
- Corps staff are reluctant to share technical information on design criteria or the design until it is finalized (i.e. not request input nor consider it seriously if offered by sponsor). (Workgroup I)
- There is a growing concern about how water quality measures are addressed in flood control projects. (Workgroup II)
- The term "betterments" is not clearly defined. (Workgroup III and IV)

Process:

- Study management team has problems with subsequent division review process. (Workgroup II)
- Changes in design frequently occur at high level review (post-Division). (Workgroup IV)
- Review opportunity provided for locals, under the current structure, provides too little time to achieve good quality response and input. (Workgroup IV)
- Once a project is authorized, it is difficult to get it changed, especially to reflect cost increases. (Workgroup V)

In-Kind Work:

- In-kind work has not been acceptable to the Corps. (Workgroup I and V)
- An insufficient understanding of acceptable in-kind work exists. (Workgroup V)

JOINT NAFSMA/CORPS RECOMMENDATIONS:

Design Criteria:

- Continuous local role in design review needs to be addressed in project management plan, including the arbitration of conflicts. (Workgroup II and IV)
- Address specific local concerns during feasibility phase and GDM to ensure that all problems are identified and that the PMP may be able to facilitate these concerns. (Workgroup III)
- Corps needs to address increased public demands on locals for project aesthetics. (Workgroup IV)
- Corps needs to recognize increasing level of professional capability among local sponsors. (Workgroup IV)
- A policy statement should be developed by the Corps to clarify contract work carried out by Corps districts, private A/E firms and/or the sponsor. (Workgroup I)
- Corps should publish a list of negotiable design criteria and a list of criteria that are not negotiable. (Workgroup I)
- Corps and FEMA should establish common standards for levee design. (Workgroup I)
- Corps should start addressing water quality measures in flood control projects. (Workgroup II)
- Corps needs to clarify the issues concerning "betterments." (Workgroup III) Workgroup III also recommended that Corps be as sensitive as possible to flexibility, cost sharing and local ability to pay and that such issues be addressed early in the process.
- Differences between local and Corps design criteria should be addressed, "generally," early in the process and sponsors need to recognize that negotiation is possible. (Workgroup V)

Process:

- If the study management team cannot be given more authority, Division personnel should attend study management team meetings on a regular basis. The result: avoidance of a "surprises" that could result from Division review of the study management team's final product. (Workgroup II)
- Technology/changes should be reviewed more expeditiously. (Workgroup III)
- Designers' field visits to project sites and local sponsors should be undertaken early in the process, such as during the development of pre-plans and specifications. (Workgroup IV)
- Corps needs to recognize a true equal partnership with its sponsor sponsors and abandon the historic "take it or leave it" posture. (Workgroup IV)
- Corps offices should permit changes, as long as sponsor pays and the change is environmentally acceptable. (Workgroup V)
- Process should be reprioritized to place a higher priority on feasibility cost estimates. (Workgroup V)

In-Kind Services:

- An extra effort should be expended, including frequent progress reviews, to describe and monitor in-kind work. (Workgroup V)
- Corps should agree to local in-kind work on the same basis as it does A-E work. (Workgroup V)

STATUTORY BASIS

Project Authorization
General Design Memoranda

POLICY/GUIDANCE

ER 11656-2-131
ER 1105-2-100
EC 1110-2-265 (Interim)

TRADE-OFFS (FEDERAL vs. LOCAL COST & ABILITY TO PAY)

ISSUE DESCRIPTION

In the course of Planning, Engineering and Design of a project, a number of opportunities may arise for refining or changing either the scope, the construction method or the schedule originally chosen for the project, or for allowing sponsors to construct parts of a project in conjunction with other activities. District Commanders can negotiate project changes to the extent that the project remains consistent with the authorization and with Principles and Guidelines. Deviations from the National Economic Development (NED) plan will require higher authority review and approval. The primary factor controlling the initiation of construction will be the availability of federal and non-federal funds. The Ability to Pay provision of WRDA 86 entitles qualifying localities to limited cost sharing relief for flood control projects.

BRIEF PRIORITIZATION OF DISCUSSION

For Workgroup III (Ohio and North Central Divisions), the issue of trade-offs generated little discussion. With Workgroups I (South Pacific Division), II (Southwestern and Lower Mississippi) and V (North Pacific and Missouri River Divisions), the topic of hazardous and toxic wastes generated the highest level of shared concern. Cost estimate-related issues were identified as concerns by two workgroups, Workgroups II and IV (South Atlantic and North Atlantic and New England Divisions) and inadequate local sponsor involvement in the development of the NED plan was identified as a high priority concern by Workgroup II.

OVERVIEW OF PROBLEMS AND CONCERNS

Hazardous Waste Cleanup:

- Concern expressed over new Hazardous Waste and Toxic Sites policy recently adopted by the Corps. Local sponsor will assume all responsibility for clean-up and liability. (Workgroup I, II and V)

- Clean-up will be considered a non-federal cost and will not be eligible for credit. (Workgroup I)
- Concerns were raised about how the environmental investigation costs and cleanup would be handled for projects past the study stage in the LCA process. (Workgroup II)
- With corps or locals subject to lawsuits on hazardous and toxic wastes, it becomes an easy way for project opponents to stop a project. (Workgroup V)

National Economic Development Plan:

- There is not enough local sponsor involvement in the National Economic Development (NED) plan. (Workgroup II)
- The question was raised concerning how inter-related projects are grouped or separated for the NED plan. (Workgroup II)

Ability to Pay:

- Ability to pay regulation is difficult to understand. (Workgroup V)

Cost Estimates:

- Current underestimating of cost estimates has caused problems. (Workgroup II)
- Implementation of the change in policy from "lowest federal total project cost" to lowest total project cost" has been unclear. (Workgroup IV)

UNIQUE CONCERNS:

- Changes in the law concerning "ability to pay" allow a less affluent qualified sponsor to defer payments. (Workgroup II)

JOINT NAFSMA/CORPS RECOMMENDATIONS:

Hazardous Waste Cleanup:

- An environmental investigation should be done as part of the study process. (Workgroup II)

- Hazardous and toxic waste policy should be revisited, with sponsors having input. (Workgroup V)

National Economic Development Plan:

- Local sponsor acceptability should carry more weight in identifying the NED or preferred plan. (Workgroup II)

Ability to Pay:

- Ability to pay regulation should be rewritten in simpler language. (Workgroup V)

Cost Estimates:

- More realistic cost estimates are needed in order to protect the Corps and local sponsors from future 902-related problems. (Workgroup II)
- Develop a clear policy statement affirming the "lowest total project cost" standard. (Workgroup IV)

STATUTORY BASIS

Project Authorization
PED Studies
Sec 103 (m) WRDA 86

POLICY/GUIDANCE

ER 1105-2-100
ER 1165-2-29
ER 1165-2-30
ER 1165-2-121 (Ability To Pay)
ER 1165-2-131

PROJECT ACCEPTANCE & OPERATION RESPONSIBILITIES

ISSUE DESCRIPTION

With the exception of commercial navigation projects, once a project is completed and turned over to the sponsor the sponsor is responsible for all operation, maintenance, repair, rehabilitation and replacement costs of that project in perpetuity, regardless of the economic or physical life.

BRIEF PRIORITIZATION OF DISCUSSION

In the various workgroup discussions on project acceptance and operation responsibilities, the category of operations and maintenance drew the most attention, with concern about the timeliness of the O&M manual drawing the highest degree of shared concern among the workgroups. Concern that the O&M manual comes too late in the process was expressed by Workgroups II (Southwestern and Lower Mississippi River Divisions), III (Ohio River and North Central Divisions) and IV (South Atlantic and North Atlantic and New England Divisions). Identified as a priority concern by Workgroup V (North Pacific and Missouri River Divisions), as well as Workgroup III, was the lack of sufficient data to prepare O&M estimates or project local costs.

The Operation and Maintenance category appeared to be the highest priority concern area also for Workgroup I (South Pacific Division), with the group reporting that few concerns were raised about project acceptance. Discussion in Workgroup I did, however, yield concerns about situations that have developed concerning conflicting provisions between Corps O&M manuals and the objectives of state or federal fish and game regulatory agencies.

Interesting recommendations to emanate from the discussions include improvement in the timing of the O&M manuals (identified by Workgroups II, III and IV), a need for local sponsors to get reasonable on O&M costs (Workgroup II) and a need for the Corps to provide better estimates and provide sponsor time sequenced O&M requirements. (Workgroup V)

OVERVIEW OF PROJECT ACCEPTANCE AND OPERATIONS RESPONSIBILITIES PROBLEMS AND CONCERNS

Operations and Maintenance:

- Operation and Maintenance manual (routinely) comes too late in the process, needs to be more detailed and needs to include more involvement by local sponsors. Because of this situation, a gross underestimate of the O & M costs could occur and falsely influence a local sponsor's assessment of his ability to maintain. (Workgroup II, III and IV)
- Corps has not done well at telling sponsors about O&M costs, ie, how much, when and how to accomplish. (Workgroup V)
- Corps operation and maintenance manuals can conflict with state fish and game and/or federal Fish and Wildlife Service requirements in the matter of channel cleaning. (Workgroup I)
- "Unclear definition" of responsibility and future rights responsibility of both the Corps and local sponsor. (Workgroup III)
- Lack of coordination of local sponsor, Corps, et al concerning their responsibilities. (Workgroup III)
- Insufficient data to prepare O&M estimates or project local costs. (Workgroup III and V)
- Transfer of project can be incremental, depending on project and sponsor. (Workgroup IV)
- The timing of the start of the warranty period and the start of the local sponsor's liability and O&M responsibility is very sensitive. (Workgroup IV)
- Scheduled replacement vs. breakdown replacement is a concern. (Workgroup V)
- Corps policy requiring inspection and local maintenance of emergency-built levees has implications, environmentally and in some cases affecting flood control effectiveness. (Workgroup V)

Construction and Design:

- Floodplain maps are not adequately incorporated in the O & M process. (Workgroup II)
- Construction and design deficiencies were discussed as a concern. (Workgroup II)
- Sometimes FEMA won't accept Corps design. (Workgroup III)

- Credit for sponsors cost in construction management should be permitted, but is not. (Workgroup IV)

Corps Quality Assurance Program:

- The Corps Quality Assurance Program, in which the contractor watches himself, was of great concern. (Workgroup II)

OTHER AND UNIQUE AREAS OF DISCUSSION

- Concerning the "hold government harmless" clause in LCAs, the Corps will not join local sponsors in court in defense of the bases of engineering design of its projects, but will assist local sponsors by providing pertinent information. (Workgroup I)
- Corps will cost-share on correction of design, engineering or construction deficiencies. Prior to P.L. 99-662, Corps would pay 100 percent. (Workgroup I)
- The FEMA-Corps relationship and its potential for conflicts was discussed. (Workgroup III)
- In the Seattle District, the operation of multipurpose lakes has been a concern. (Workgroup V)

JOINT NAFSMA/CORPS RECOMMENDATIONS

Operations and Maintenance:

- Operation and Maintenance manuals should be part of PMP (and draft supplied at 50 percent of construction – Workgroup II). Local sponsor should be consulted on maintenance during study phase. (Workgroup II, III and IV) Workgroup IV was not as specific, however, improvement in the timeliness of the development and delivery of the O & M manual to the local sponsor was recommended.
- O&M manual should be assembled as project progresses toward completion. (Workgroup IV).
- Corps should do better life cycle cost estimating and provide sponsor time sequenced O&M requirements. (Workgroup V)
- The local sponsor needs to get reasonable on O & M costs. NAFSMA may be able to develop more up-to-date maintenance data from its members. (Workgroup II)

- Corps should seek input of fish/game agencies during design and during writing of the operation and maintenance manual for projects, and obtain the agencies' approval signatures in the operation and maintenance manual. (Workgroup I)
- Corps should assure that final operation and maintenance requirements are consistent with project design criteria. (Workgroup I)
- Provide better education and training to locals regarding their responsibilities and encourage LCPM to provide more leadership on local sponsor responsibility. (Workgroup III)
- Encourage local sponsors to identify O&M limitations early. (Workgroup III)
- Encourage Corps/NAFSMA to develop O&M data base. (Workgroup III)

Construction and Design:

- Local sponsor should be involved when construction and design deficiencies are discovered. (Workgroup II)
- Hydrology and hydraulics work concerning FEMA flood map revisions should be developed during design effort. For projects already beyond this point, it should be addressed as a project cost. (Workgroup II)
- If deficiencies in construction are found, they should be corrected. Maintenance standards should be addressed. (Workgroup II)
- Get as-builts done early, on a monthly basis. (Workgroup IV)
- Sponsors must be allowed to be involved in project inspection. (Workgroup IV)
- Credit for sponsors cost in construction management should be permitted. (Workgroup IV)
- Close coordination between Corps and local sponsor is needed at time of constructing acceptance, warranty start and at transfer of project to sponsor. (Workgroup IV)

STATUTORY BASIS

Sec 221 of Flood Control Act of 1970
Sections 101 and 103 of WRDA 1986

POLICY/GUIDANCE

ER 1165-2-119
ER 1165-2-131

FINANCING, ESCROW & ACCOUNTING

ISSUE DESCRIPTION

Corps policy is that construction cannot commence until a sponsor financing plan is approved and an LCA is executed by ASA(CW). The financing plan includes a federal/non-federal funding schedule and the District Commander's assessment of the sponsor's financial capability, based on the detailed plan developed by the sponsor. The amount of the sponsor's cash contribution is a function of project type and the value of LERRD provided by the sponsor. The cash is then either provided in a lump-sum to the District, into an escrow account or in the form of a letter of credit. These values must be audited and accounted for in a specific manner.

BRIEF PRIORITIZATION OF DISCUSSION

In Workgroup II (Southwestern and Lower Mississippi River Division), the discussion of financing, escrow and accounting did not generate a high level of concern. In Workgroup I (South Pacific Division), although the issue may of been of concern, it did not not appear to generate a high level of discussion. Concern about the current financing system relating to escrow agreements was raised as a high priority by Workgroups II, III (Ohio River and North Central Divisions), IV (South Atlantic and North Atlantic and New England Divisions) and V (North Pacific and Missouri River Divisions). Workgroup I also identified escrow agreements, or the lack of use of alternative escrow accounts, as a priority concern.

Reporting-related concerns were raised as part of this discussion by Workgroups II, III and IV and recommendations were made in this area as a result of each of these discussions. Recommended by Workgroup V were better records describing the process and the parties involved with the individual financing commitments. Such records, according to Workgroup V, would be helpful aids to future legislators and/or governmental bodies which may need to deal with a project or its components at some later point.

OVERVIEW OF LCA-RELATED PROBLEMS AND CONCERNS

Financing and Escrow:

- Current process concerning escrow agreements does not allow local sponsors to maximize interest earnings. (Workgroup II, III, IV and V)
- Some sponsors have been informed that alternative escrow accounts are not acceptable. (Workgroup I)
- A lack of understanding exists concerning the legal and administrative requirements concerning escrow agreements. (Workgroup III)
- Concern was expressed over locals being required to deposit funds based on federal fiscal year. This situation causes funding problems concerning the sponsor's fiscal year funding sources and authorities. (Workgroup IV)
- Local jurisdiction may need a legislative remedy to problem of not being able to obligate future governmental bodies. (Workgroup V)

Reporting:

- Lack of adequate financial reporting to local sponsors was noted as a concern. (Workgroup II)
- Concern was expressed over audits and financing requirements which may develop over the course of the project. (Workgroup III)
- Many sponsors are not yet receiving financial/accounting statements. (Workgroup IV)

Close-Out:

- Long delays seem to occur in financial close out of complete projects. (Workgroup IV)

OTHER CONCERNS

- Concern was expressed that the use of harbor fees to pay off revenue bonds has not been used and the question was raised concerning whether such a practice is allowable. Corps representatives responded that the use of harbor fees is permissible. (Workgroup V)

JOINT NAFSMA/CORPS RECOMMENDATIONS

Financing and Escrow:

- Alternative accounts should be acceptable if they meet requirements of certainty and availability. (Workgroup I)
- Obligation from escrow account should be allowed. (Workgroup II)
- Escrow agreement should be called a "deposit agreement" to avoid state law limitations on escrow administration which in some cases leads to use of the trust account funds for project administration. (Workgroup IV)
- Corps should accomplish whatever modifications are needed in policy, regulation or law which are required to recognize sponsors funds "in the Treasury," avoiding local revenue problems for the sponsor and unnecessary contract modification by the Corps. (Workgroup IV)
- A flexible policy is needed which would allow for designation of escrow agents from local governing jurisdictions, for the purpose of eliminating escrow fees. (Workgroup V)
- The entire topic of financing should be discussed, written up and agreed to at the earliest possible times in the process of formulating and designing projects. (Workgroup V)
- Frequency of withdrawals should be at as short of a period as possible to maximize earnings. (Workgroup III)
- All parties should be familiarized with limitations of the law early on in the process so that expectations are not impractical. (Workgroup III)
- Possible law modifications concerning the Anti-Deficiency Act should be evaluated. (Workgroup III)
- Training and clarification should be provided to both Corps personnel and local sponsors concerning limitations, legal requirements and other aspects of escrow agreements. (Workgroup III)
- Legislation to remedy the problem of not being able to obligate future governmental bodies should be supported. (Workgroup V)

Reporting:

- Reporting needs should be established in the LCA and the district should set up reports accordingly. (Workgroup II)
- Financial reporting needs substantial improvement concerning form, content and the regularity of providing such reports to the sponsor. (Workgroup IV)
- It should be made certain that final allocations are related to construction progress rather than to schedule. (Workgroup II)
- Local sponsors should be familiarized with auditing and financing requirements early on to ensure that such requirements can be anticipated. (Workgroup III)
- Accounting reports of Corps to sponsors need to include advance projections of spending, as well as the status of spending to date. (Workgroup IV)
- Sponsors allowable local costs need to be included in project accounting report – need good cost accounting system. (Workgroup IV)
- Records are lacking which describe the way various state and local governments dealt with financing commitment. Such records would help future legislators and/or other governmental bodies which may need to deal with the project. (Workgroup V)
- A reference source should be compiled and disseminated to reflect state and local the mechanisms that were involved in the financing commitment. (Workgroup V)

Close-Out:

- LCA language should allow immediate direct reimbursement to locals of unspent escrow deposit when project is completed. (Workgroup IV)

STATUTORY BASIS

CHAPTER IV-FY 85 Supplemental Appropriation
WRDA 86 and WRDA 88 (audit recommendation)

POLICY/GUIDANCE

ER 37-2-10
EC 37-2-119 (Draft)
ER 1165-2-131

DEPUTY DISTRICT ENGINEERS FOR PROJECT MANAGEMENT

(As of February 4, 1990)

NAME	DISTRICT	PHONE
Lower Mississippi Valley Division		
Fred Caver		(601) 634-5904
Jack Niemi	St. Louis	(314) 263-5740
Sam Morgan	Memphis	(901) 544-3820
Roy Smith	Vicksburg	(601) 631-7933
Cletis Wagahoff	New Orleans	(504) 862-2204
Missouri River Division		
Bob Scott		(402) 221-7261
Bob Roumph	Omaha	(402) 221-3928
Roy Reed	Kansas City	(816) 426-5193
North Atlantic Division		
John Karkowski		(212) 264-7114
Rich Moraldo	Philadelphia	(215) 597-4884
Sam Tosi	New York	(212) 264-1475
Charlie Hess	Baltimore	(301) 962-7960
Jack Starr	Norfolk	(804) 441-7112
North Central Division		
Lee Hoglind		(312) 353-6358
Dave Haumerson	St. Paul	(612) 220-0296
John Kumor	Buffalo	(716) 879-4203
W. Scott Parker	Detroit	(313) 226-3443
Rich Carlson	Chicago	(312) 353-6400
Doyle McCully	Rock Island	(309) 788-6361
New England Division		
William McCarthy	New England	(617) 647-8230
North Pacific Division		
John Plump		(503) 326-2193
Stephen Boardman	Alaska	(907) 753-2674
Davis Moriuchi	Portland	(503) 326-6001
Larry Shannon	Seattle	(206) 764-3691
Bert Leonard	Walla Walla	(509) 522-6458
Ohio River Division		
Bob Selders		(513) 684-3006
David Deeds	Huntington	(304) 529-5699
George Cingle	Pittsburgh	(412) 644-6807
E.C. Moore	Nashville	(615) 736-5626
Neal Jenkins	Louisville	(502) 582-5602
Pacific Ocean Division		
Jerry Cornell	Honolulu (POD)	(808) 438-0030
South Atlantic Division		
Jim Robinson		(404) 331-6841
Ed Shuford	Wilmington	(919) 251-4506
Don Herndon	Charleston	(803) 724-4308
Fred Kitchens	Savannah	(912) 944-5220
Richard Bonner	Jacksonville	(904) 791-2506
Larry Green	Mobile	(205) 690-2326

(Continued)

DEPUTY DISTRICT ENGINEERS FOR PROJECT MANAGEMENT
(As of February 4, 1990 – Continued)

NAME	DISTRICT	PHONE
South Pacific Division		
Robin Mooney		(415) 705-1645
Brian Moore	Los Angeles	(213) 894-0541
Jack Farless	San Francisco	(415) 744-3021
John Saia	Sacramento	(916) 551-3142
Southwestern Division		
Dave Barber		(214) 767-2371
(T) Kevin McCarthy	Fort Worth	(817) 334-3565
Bob Brown	Tulsa	(918) 581-7311
John Cunico	Albuquerque	(505) 766-3216
William Wooley	Galveston	(409) 766-3003
David Burrough	Little Rock	(501) 378-5531

SPONSORS' GUIDE TO CORPS ABBREVIATIONS, ACRONYMS AND NUMBERS

Abbreviations and Acronyms

The following list defines some of the more frequently used abbreviations and acronyms that sponsors may encounter in working with Corps employees and reading Corps documents. Although some of the entries are common throughout business, government or the construction industry, many are unique to the Army or the Corps. Most are informal products of the civil works business. The official Army list is in AR 310-50, "Authorized Abbreviations, Brevity Codes and Acronyms" (15 November 1985).

AAA	Army Audit Agency
a-b-c's	requirements for local cooperation
ACE	Assistant Chief of Engineers
ACHP	Advisory Council on Historic Preservation
ACO	administrative contracting officer
ADP	automatic data processing
AE	architect-engineer
A-E	architect-engineer
A/E	architect-engineer
AE&D	advanced engineering and design
AF	acre foot
AFARS	Army Federal Acquisition Regulation Supplement
AL	annual leave
AMPCL	administrative maximum project cost limit
AO	area office
A/O	as of
APWA	American Public Works Association
AR	Army regulation
ASA	Assistant Secretary of the Army
ASA(CW)	Assistant Secretary of the Army (Civil Works)
ASAP	as soon as possible
ASCE	American Society of Civil Engineers
ATTN	attention
BC	benefit-cost
BC	benefit-cost ratio
BCA	Board of Contract Appeals
BCR	benefit-cost ratio
BE	beach erosion
BE/HUR	beach erosion/hurricane protection
BERH	Board of Engineers for Rivers and Harbors
BG	brigadier general
BLM	Bureau of Land Management
BOD	biological oxygen demand
BR	branch
BR	Bureau of Reclamation
BY	budget year
CA	commercial activities
CA	continuing authorities
CACES	computer aided cost estimating system
CAP	Continuing Authorities Program
CBD	central business district
CBD	Commerce Business Daily
CBO	Congressional Budget Office
CDR	commander
CE	civil engineer
CE	Corps of Engineers

CEBRH	Board of Engineers for Rivers and Harbors
CECW	Corps of Engineers Civil Works
CECW-B	Headquarters, Civil Works Programs Division
CECW-E	Headquarters, Engineering Division
CECW-L	Headquarters, Civil Works Life Cycle Project Management Division
CECW-O	Headquarters, Construction, Operations and Readiness Division
CECW-P	Headquarters, Policy and Planning Division
CENED	New England Division
CEPOD	Pacific Ocean Division
CEQ	Council on Environmental Quality
CERB	Coastal Engineering Research Board
CERC	Coastal Engineering Research Center
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980 (Superfund)
CERL	Construction Engineering Research Laboratory
CETAL	Corps of Engineers time and attendance labor (report)
CF	copy for, copy furnished
CFC	Combined Federal Campaign
CFR	Code of Federal Regulations
CG	Coast Guard
CG	Commanding General
CG	construction, general
CM	construction management
CMR	Command Management Review
CO	commanding officer
COB	close of business
COD	chemical oxygen demand
COE	Chief of Engineers
COE	Corps of Engineers
COEMIS	Corps of Engineers Management Information System
COL	colonel
COLA	cost-of-living adjustment
CONTRAST	Corps nontraditional systems training
CONUS	continental United States
COR	contracting officer's representative
CPAR	construction productivity advancement research
CP&E	continued planning and engineering
CPM	critical path method
CPO	Civilian Personnel Office
CPT	captain
CRA	continuing resolution authority
CRREL	Cold Regions Research and Engineering Laboratory
CS	Chief of Staff
CSC	Civil Service Commission
CSI	Construction Specifications Institute
CSRS	Civil Service Retirement System
CVM	contingent value method
CW	civil works
CWA	Clean Water Act (of 1977)
CWCCIS	Civil Works Construction Cost Index System
CWE	current working estimate
CWIS	Civil Works Information System
CY	calendar year
CY	cubic yard
CY	current year
CZM	coastal zone management
CZMA	Coastal Zone Management Act
DA	Department of the Army

DAL	division approval limit
DAR	Defense Acquisition Regulations
DCW	Director, Civil Works
DDE(PM)	Deputy District Engineer for Project Management
DE	district engineer
DE	division engineer
DEIS	draft environmental impact statement
DF	disposition form
DFARS	Defense Federal Acquisition Regulation Supplement
DIN	do it now
DIST	district
DIV	division
DM	design memorandum
DNR	Department of Natural Resources
DOA	Department of the Army
DOD	Department of Defense
DOD	dissolved oxygen demand
DOE	Department of Energy
DOI	Department of the Interior
DOJ	Department of Justice
DOT	Department of Transportation
DPR	definite project report
DPR	detailed project report
DPS	detailed project study
DS	downstream
DTO	data for testifying officers
DWR	Department of Water Resources
EA	environmental assessment
EAB	Environmental Advisory Board
EC	engineer circular
E&C	Engineering and Construction
E&D	engineering and design
EDA	Economic Development Administration
EEO	equal employment opportunity
EFARS	Engineer Federal Acquisition Regulation Supplement
EIS	environmental impact statement
EM	engineer manual
EO	Executive Order
EOB	Executive Office Building
EOC	emergency operations center
EP	engineer pamphlet
EPA	Environmental Protection Agency
EQ	environmental quality
ER	engineer regulation
EROC	engineering reporting organization code
ERTS	earth resources technology satellite
ESA	Endangered Species Act
ETL	engineer technical letter
ETL	Engineering Topographic Laboratories
F&A	finance and accounting
FAD	funding authorization document
FAO	finance and accounting officer
FAR	Federal Acquisition Regulation
FC	flood control
FCA	flood control act
FCSA	feasibility cost sharing agreement
FDM	feature design memorandum
FDP	flood damage prevention

FEIS	final environmental impact statement
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FERS	Federal Employees Retirement System
FHA	Federal Highway Administration
FHA	Federal Housing Administration
FIA	Federal Insurance Administration
FIS	flood insurance studies
F&M	foundations and materials
FNSI	finding of no significant impact
FOA	field operating agency
FOI	Freedom of Information
FOIA	Freedom of Information Act
FONSI	finding of no significant impact
FOUO	for official use only
FPC	Federal Power Commission
FPI	flood plain information
FPM	flood plain management
FPMS	flood plain management services
FR	Federal Register
FRC	feasibility review conference
FS	Forest Service
FTE	full time equivalent
FTP	full time permanent
FTS	Federal Telecommunications System
FTT	full time temporary
F&W	fish and wildlife
F&WL	fish and wildlife
FWS	Fish and Wildlife Service
FY	fiscal year
FYI	for your information
GAO	General Accounting Office
GBL	government bill of lading
GDM	general design memorandum
GE	general expense
GFP	government furnished property
GI	general investigation
GIS	geographic information system
GIWW	Gulf Inter-Coastal Waterway
GM	general schedule merit pay system
GNF	general navigation feature
GPAS	General Performance Appraisal System
GPO	Government Printing Office
GRH	Gramm - Rudman - Hollings
GS	general schedule
GSA	General Services Administration
HABS	Historic American Buildings Survey
HAC	House Appropriations Committee
HAER	Historic American Engineering Record
HAZMAT	hazardous material
HBC	House Budget Committee
HD	House document
HEC	Hydrologic Engineering Center
HEP	habitat evaluation procedures
HES	habitat evaluation system
HEW	Health, Education and Welfare
H&H	hydrology and hydraulics
HHG	household goods

HHS	Health and Human Services
HJ	House Joint
HL	hired labor
HPWC	House public works committee
HPWCR	House public works committee resolution
HPWTC	House Public Works and Transportation Committee
HQ	headquarters
HQUSACE	Headquarters, U.S. Army Corps of Engineers
HR	House of Representatives
HR	House resolution
HRM	human resource management
HSDR	hurricane and storm damage reduction
HTW	hazardous and toxic waste
HUD	Housing and Urban Development
HVAC	heating, ventilation and air conditioning
I88	Initiative '88
IA	initial appraisal
IAW	in accordance with
IBWC	International Boundary and Water Commission
ICW	in concert with
ICWP	Interstate Conference on Water Problems
ID	identification
IDA	initial denial authority
IDC	indefinite delivery contract
IDC	interest during construction
IDP	individual development plan
IFB	invitation for bid
IG	inspector general
IHO	in honor of
IJC	International Joint Commission
IM	information management
IMO	Information Management Office
INSA	Inland Navigation Systems Analysis
IPA	Intergovernmental Personnel Act
IPM	individual project manager
IPMP	initial project management plan
IPR	in-progress review
IPT	interdisciplinary planning team
IRC	issue resolution conference
IWR	Institute for Water Resources
IWWTF	Inland Waterway Trust Fund
JCS	Joint Chiefs of Staff
JTR	Joint Travel Regulation
LASH	lighter aboard ship
LCA	local cooperation agreement
LCPM	life cycle project management
L&D	lock and dam
LERD	lands, easements, rights of way, disposal
LERR	lands, easements, rights of way, relocations
LERRD	lands, easements, rights of way, relocations, disposal
LMMP	Limited Map Maintenance Program
LMPCL	legislative maximum project cost limit
LMVD	Lower Mississippi Valley Division
LOI	letter of intent
LPP	local protection project
LS	lump sum
LT	lieutenant
LTC	lieutenant colonel

LTG	lieutenant general
LTT	long term training
MACOM	Major Army Command
MAJ	major
MARAD	Maritime Administration
MARKS	Modern Army Recordkeeping System
M-CACES	microcomputer aided cost estimating system
MCD	minor civil division
MCD	miscellaneous commitment document
MFR	memorandum for the record
MG	major general
M&I	municipal and industrial
M&E	meals and incidental expenses
ML	multiple letter
MLG	mean low Gulf
MLW	mean low water
MLLW	mean lower low water
MOA	memorandun of agreement
MOA	method of accomplishment
MOB	mobilization
MOD	miscellaneous obligation document
MOU	memorandum of understanding
MP	military programs
MPF	maximum probable flood
MRC	Mississippi River Commission
MRD	Missouri River Division
MR&T	Mississippi River and Tributaries
NA	not applicable
NA	not available
NAD	North Atlantic Division
NADB	National Archeological Data Base
NAFSMA	National Association of Flood and Stormwater Management Agencies
NASA	National Aeronautics and Space Administration
NAV	navigation
NCD	North Central Division
NCO	noncommisioned officer
NED	national economic development
NED	New England Division
NEPA	National Environmental Policy Act
NGVD	national geodetic vertical datum
NFIP	National Flood Insurance Program
NIMBY	not in my back yard
NLT	not later than
NMFS	National Marine Fisheries Service
NOAA	National Oceanographic and Atmospheric Administration
NOI	notice of intent
NPD	North Pacific Division
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRA	National Recreation Area
NRHP	National Register of Historic Places
NTIS	National Technical Information Service
NTL	not later than
NTP	notice to proceed
O/A	on or about
OACE	Office of the Assistant Chief of Engineers
OASA	Office of the Assistant Secretary of the Army
OASA(CW)	Office of the Assistant Secretary of the Army, Civil Works

OBE	overcome by events
OBERS	Office of Business Economics/Economic Research Service
OBS	organizational breakdown structure
OCE	Office of the Chief of Engineers
OCONUS	outside continental United States
OJT	on-the-job training
OM	operating manual
O&M	operation and maintenance
OMB	Office of Management and Budget
OM&R	operation, maintenance and rehabilitation
OMRR	operation, maintenance, repair and rehabilitation
OMRR&R	operation, maintenance, repair, replacement and rehabilitation
OPM	Office of Personnel Management
ORD	Ohio River Division
ORV	off-road vehicle
OSA	Office of the Secretary of the Army
OSD	Office of the Secretary of Defense
OSE	other social effects
OSHA	Occupational Safety and Health Administration
OT	overtime
P	promotable
PA	Planning Associate
PAC	postauthorization change
PAM	pamphlet
PAO	Public Affairs Office
PAS	planning assistance to states
PB-1	Engineering Form 2200, Summary Construction Program
PB-2a	Engineering Form 2201A, Detailed Project Schedule
PB-3	Engineering Form 2202, Project Cost Estimate
PB-5a	Engineering Form 2205A, Study Program Schedule
PB-6	Engineering Form 2204, Study Cost Estimate
PC	personal computer
PCS	permanent change of station
PDC	paid during construction
PE	professional engineer
PED	preconstruction engineering and design
PE&D	planning, engineering and design
PERT	program evaluation and review technique
P&G	Principles and Guidelines
PGM	project guidance memorandum
PGN	Planning Guidance Notebook
PI	principal investigator
PL	public law
PL-99	Public Law 99, 84th Congress, Emergency Flood Control Funds
PM	project manager
PM	public meeting
PMF	probable maximum flood
PMO	Programs Management Office
PMP	project management plan
POA	plan of action
POC	Planner Orientation Course
POC	point of contact
POD	Pacific Ocean Division
POS	plan of study
PR&A	program review and analysis
PRB	Project Review Board
PRIP	Plant Replacement and Improvement Program
PRISM	Project Resources Information System for Management

PROSPECT	proponent-sponsored engineer Corps training
P&S	plans and specifications
P&S	Principles and Standards
P&S	procurement and supply
PTP	part time permanent
QA	quality assurance
QC	quality control
QA/QC	quality assurance/quality control
Q's & A's	questions and answers
RAPM	Resource Analysis/Project Management
RBRCR	remaining benefit - remaining cost ratio
RCC	roller compacted concrete
RCS	reports control symbol
RD	regional development
R&D	research and development
RE	real estate
RE	regarding
REC	recreation
RED	regional economic development
RFP	request for proposal
R&H	river and harbor
RHA	river and harbor act
R&HA	river and harbor act
RHFCA	river and harbor and flood control act
RIF	reduction in force
RMO	Resource Management Office
ROD	Record of Decision
ROW	right of way
R-O-W	right of way
RRC	reconnaissance review conference
S	Senate
SA	Secretary of the Army
S&A	states and agencies
S&A	supervision and administration
S/A	states and agencies
SAB	subject as above
SAC	Senate Appropriations Committee
SACW	Secretary of the Army, Civil Works
SAD	South Atlantic Division
SADBU	small and disadvantaged business utilization
SAME	Society of American Military Engineers
SBC	Senate Budget Committee
SBH	small boat harbor
SCORP	state comprehensive outdoor recreation plan
SCRB	separable cost-remaining benefit
SCS	Soil Conservation Service
SD	Senate document
SEC	section
SEPWC	Senate Environment and Public Works Committee
SES	Senior Executive Service
SF	standard form
SFO	support for others
SGT	sergeant
SHPO	state historic preservation officer
S&I	supervision and inspection
SL	sick leave
SM	study manager
SMSA	standard metropolitan statistical area

SOP	standard operating procedures
SOS	scope of studies
SOW	scope of work
SPD	South Pacific Division
SPF	standard project flood
SPH	standard project hurricane
SPOC	single point of contact
SPWC	Senate public works committee
SPWCR	Senate public works committee resolution
SR	Senate resolution
S&S	savings and slippage
SWB	social well-being
SWD	Southwestern Division
T&A	time and attendance
TB	technical bulletin
TBA	to be announced
TBD	to be determined
TCM	travel cost method
TDY	temporary duty
TM	technical manual
TO	travel order
TPM	team project manager
TRC	technical review conference
UDO	undelivered order
UDV	unit day value
USACE	United States Army Corps of Engineers
USAED	United States Army Engineer District
USAED	United States Army Engineer Division
USATHAMA	United States Army Toxic and Hazardous Materials Agency
USC	United States Code
USCG	United States Coast Guard
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VE	value engineering
VV	revolving fund
WBS	work breakdown structure
WES	Waterways Experiment Station
WLRC	Washington Level Review Center
WRC	Water Resources Council
WRDA	Water Resources Development Act
WS	water supply
WTP	willingness to pay